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LECTURES
ON
COMPARATIVE ANATOMY
AND
ANIMAL PHYSIOLOGY,

DELIVERED BY

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LECTURE IX.

ON THE ORGANS OF SUPPORT OF THE TUNICATED AND CONCHIFEROUS CLASSES OF MOLLUSCOUS ANIMALS.

THE most curious and interesting circumstance regarding the skeletons of that great division of the animal kingdom which comprehends all the *molluscous* classes, is the want of that earth which we have seen in the lowest corals, through all the previous classes we have considered, and which we again meet with from the lowest of the cartilaginous fishes through the various *vertebrata* upwards to man himself—the phosphate of lime. The phosphate of lime, even in the soft cartilaginous dorsal laminæ which are met with in the cephalopods, cannot be detected. This is the more remarkable, not only on account of that earth being found so abundantly in almost every form of the skeleton we have yet considered where there was earthy matter, but because it was sometimes the only earthy matter that consolidated the skeleton. That is the case in the insects where the *chitine* is consolidated by the dense material—the *phosphate* of lime—without any of the softer carbonate. But it is remarkable in another point of view, which is, that we are approaching to those vertebrated forms of the skeleton, where the phosphate of lime becomes by far the preponderating material, the carbonate of lime scarcely being there traceable. The skeleton of these molluscous classes is very uniform in its composition, and remarkable for the sameness of its intimate structure throughout the classes in which it presents itself in this great division of the animal kingdom. We shall see here many examples, and there are many more examples in the other classes, of what we have seen already, particularly among zoophytes and worms, i. e. of animals possessing the same internal organization, and yet one species possessing a heavy massive skeleton connected with its muscular apparatus, whilst another species similarly organised, is entirely destitute of an external or internal solid skeleton, which shows how little relation there is between the condition of the organs of support and the general complexity of the internal organization of animals. We saw yesterday that the dense phosphate of lime is best adapted for the thin and temporary coverings of the quick-moving *articulata*. The *carbonate* forms a tougher material for the massive rocky skeletons of the slow and inert mollusca, which accumulate on their surface all the successive layers of their calcareous deposits, and retain them as a strong and permanent shield. These massive coverings are, consequently, much less subdivided, and much simpler in their forms, than the jointed skeletons of the former classes.

The lowest and simplest of these molluscous classes is that of the naked acephalous mollusca of CUVIER, or the tunicated animals of LAMARCK, which are covered with a tough, elastic, and closed tunic in place of the two open calcareous valves of the conchifera. This external tunic which envelops the muscular fibrous mantle, the respiratory sac, and all the digestive, circulating, and generative organs of these soft animals, is very variable in consistence, colour, and form. Sometimes it is soft, green, and transparent, when the animals, aggregated toge-

ther, very much resemble clusters of green grapes. Sometimes the tunic is deep red, or dark brown, and opaque. It is generally pellucid, homogeneous, of a cartilaginous texture, not exhibiting a fibrous structure, and not possessing any earthy matter in its composition, and having a respiratory and an anal aperture. These tunicated animals,—notwithstanding they are thus entirely covered externally with a tunic possessing two apertures similar to those we find so generally in the bivalved mollusca—we frequently observe covered externally with adventitious solid earthy matter. But these external agglutinated particles (as the tube-like substances composed of fragments), so common among worms, are not due to the vital powers of the animal, but are extraneous bodies, sometimes particles of gravel, of shell, and even of mud, which, in the soft condition, or by minute orifices of this exterior tunic, are made to attach themselves to the surface. Thus we find many of these tunicated animals enveloped, as it were, in a ball of sand; and, indeed, without tearing the capsular integument, which is the analogue of the shells of *bivalvia*,—we could not detach from the skeleton those particles of shells or sand.

Some of these *ascidiæ*, such as I hold in my hand, have little processes from the external tunic, which pass down and are attached to the rock upon which the animal adheres, for the tunicated class are all marine animals, and generally adhere to rocks. These appendices frequently are found extended to a considerable length, like roots, from the general surface of this cartilaginous tunic, and have attached to them loose portions of shell or gravel.

This form of external tunic is, as I have said, the *analogue* of the shells of the bivalves, only deprived of their calcareous matter. We find within this exterior tunic a muscular tunic. That muscular covering is analogous to the mantle, as it is called, of the higher classes of the molluscous animals. It is connected with various parts of the tunic, but especially around its two orifices; so that when these animals distend themselves with water for respiration, they can contract their whole body and empty their sac. We shall see, in speaking of their other systems, that they possess a complex structure,—that they have a complex digestive and generative system,—that they have a complicated nervous system, with ganglia and organs for circulation,—that they have glandular organs to assist in digestion,—that they have a stomach and intestine enveloped in this apparently homogeneous texture. This muscular part has a connexion, then, which powerfully moves the exterior tunic, so that when they are irritated, they act with such force on the exterior tough cartilaginous tunic, as to propel to a distance the water which filled their branchial cavity. The elasticity of this tunic assists the vibratile cilia in distending the respiratory sac with water, like the elastic ligament of a bivalve; but the respiration in neither case is effected by dilatations and contractions of the whole mantle. This elastic uncalcified covering is thus analogous both to the shells and ligaments of the conchifera. It forms a sac, as you observe, in this *cynthia papillata* (*U* 1), with a respiratory and an anal aperture, the former of which (*U* 1, *a*) admits the water and food to the branchial sac, at the bottom of which is the mouth; the other aperture (*U* 1, *b*) gives egress to the continuous smooth respiratory current, and to the contents of the intestine and the ovaries. The stomach (*U* 1, *c*) you will observe surrounded by the lobes of the liver (*U* 1, *g*), and near to the liver are the ovaries (*U* 1, *f*). The branchial veins transmit the arterialised blood to a slightly-dilated pulsating heart, and the aorta runs along the outer convex side of the intestine, as in the inhabitants of bivalve shells. This structure, which is pretty uniform in the simple isolated forms of tunicata, is variously modified in those remarkable compound forms we find in the lowest animals of this class.

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This beautiful luminous animal, the *pyrosoma*, formed like a hollow pillar, open below (*U* 2, *b*), and shut above (*U* 2, *a*), is one possessing this compound structure, and familiar to all those who have passed the tropics, because there, in the darkness of the night, and when the ocean is tranquil, with not a ripple to disturb its surface, it is found illuminated by myriads of these little animals, which, like pillars of fire, are floating through the dark abyss, without apparently moving any portion of their body. This motion is effected by the act of respiration of all the little separate animals (*U* 2, *c*, *c*) that compose one of these tubes. Each of these separate little animals, which are here in myriads, organically connected, and forming by their union a tube, shut above, and open below, is covered with a tissue externally, like that of the *cynthia* or ascidia; but here, as in most of the compound animals, the tunic of each is soft, transparent,

almost membranous. The pyrosoma draws in water by these projecting papillæ, covering the whole surface in the specimens before you, and it passes the water into the tubular column by the anal orifices which open into that general canal, and so raises its body up to swim through the still deep, like a pillar of fire, all the little component animals shining with a brilliant phosphorescent light, like the polypi of a *pennatula*. Sometimes the cartilaginous tunic extends like a long peduncle, as in *botrenia* and *clavellina*, serving to connect the animal to the rocks or shells or plants at the bottom of the sea, for the greater number of them, both of the simple and compound kinds, are fixed.

The next class of animals, the *conchiferous*, presents great sameness in the composition and general texture of the skeleton. The forms, however, which the skeleton presents, are various. This class comprehends the bivalved animals. A very few, as the *pholades*, have, in addition to the two valves, small supplementary portions, and are therefore called *multivalves*; but in this class the external calcareous shell consists generally of two valves. Those solid valves are placed on the exterior of the body, between the epidermis and the true skin; so that you observe, for instance, in this *solen*, the epidermis covering the whole exterior of the shells. Within that exterior epidermis are placed the calcareous layers of the shell, and within the shell itself we come to the fleshy mantle which secretes it. This shell is composed of the carbonate of lime, exuded in layers from the surface of the mantle; and those layers contain also a considerable quantity of animal matter, which also passes out from the mucous surface of the mantle.

The new layers that consolidate the general mass are formed always in the interior of the shells, the old layers being retained in connexion with them, so as to form in the end a very thick strong exterior skeleton, such as you see in this large *tridacna*—the *tridacna gigas*—which sometimes acquires a size so enormous that a ship's crew may feed upon the animal contained within the two valves. The layers are deposited in the inner surface in such a manner that the new layers always extend their margins forward beyond the old. Thence it is, that we find the free margins of the shell thinner than the parts which are farther back, and the originals of the shells of the young animals are those layers which are contained on the outer surface. You can, therefore, generally observe on the outer surface of those bivalved shells, lines indicating the terminations of the successive layers; each of those layers being at one period of the animal's life, the termination of the shell—its free margin. This earthy matter is deposited chiefly by the thick glandular margin of the mantle which you see in those large views, to which I now direct your attention, of the structure of the common *muscle* found on our own coast, *the mytilus edulis* (*W*).

As the calcareous matter is deposited chiefly by that thickened anterior secreting margin of the mantle, not only in the conchiferous animals, but also in the gasteropods; it necessarily follows that in proportion as the form of the mantle varies, so also must vary the margins of the animal's shell. No part of the body is so variable in the adult state as the outline of the margin of the mantle, and no part is more diversified than the margins of these shells. Now, often at different periods of the animal's life, or at different seasons of the year, this is peculiarly influenced. It is influenced also by the generative system, which we find to affect even the forms of the skeleton in the *mammalia* themselves, an instance of which is observed in the development of the antlers of the *deer* tribe. We find that that system has an important sway over the forms assumed by the margins of the shells of molluscous animals at different periods.

Now the valves that thus compose the exterior skeleton of the *conchifera* are connected together by an elastic substance interposed between them, called the ligament. That connexion is also assisted by certain processes of the shell, such as you observe in this *spondylus*, which are called teeth. These teeth in the conchiferous animals have nothing to do with digestion, like the teeth of the vertebrata, but are portions that are beautifully dovetailed into each other, and have often the form of teeth; sometimes a serrated margin is in this way produced, as you perceive in the hinge of the *arca* (*X* 3, *b*).

The part of the shell to which these teeth belong is, in the language of zoologists, called the *hinge*.

The forms presented by these teeth are peculiar to each genus, and serve as important characters for the distinction of the genera and species in zoology. No part is of more importance than this to be attended to by the geologist. The geologist can know nothing generally about the coating, the colours, or the lustre of the shells with which he is conversant, because all that has gone, perhaps thousands of years before the shell came into his view. He often can obtain only mutilated fragments, or a surface view of a particular part of the shell embedded in solid

rocks, and from these partial observations he must determine the species,—for unless he ascertain the exact species, all speculations founded upon the fact of its occurrence are futile and vague. Therefore it is that the geologist seeks to arrive at an exact knowledge of the structure of the hinge, and the muscular impressions (*X* 3, *c*) within; so that in giving an account of a new species, he is chiefly interested in representing the form of those parts.

The ligament, which is placed always near the hinge of the shell, is a substance that by its elasticity tends to open the valves as well as to connect them, and is composed, like the shell, of layers successively deposited on its inner surface, as you perceive very obvious in this large ligament of the *spondylus* (*X*, 1). The newly-formed inner layers of this ligament are always more soft and elastic than the old decayed outer layers, a change similar to what takes place in the layers of the shell itself. The antagonist to the opening tendency of the ligament is the adductor muscle (*W*, *a*) which is attached strongly to the two valves. When, therefore, the muscular efforts of the animal are at an end, when it chooses to relax the muscle or muscles of attachment, or when it is diseased or about to die, the two valves are pushed asunder, and opened by the natural elasticity of the interposed ligament (*W*, *c*), and thus the animal dies with the valves (*W*, *a*, *b*) gaping. It is like a piece of Indian rubber compressed between the two pieces of the shell when they are closed, and it is useful in respiration, and in various motions of the living animal, as well as for binding the two valves together. From the elasticity of the whole cartilaginous shell of the *tunicata* no such ligament is required in them, and it may be viewed in the *conchifera* as only an uncalcified portion of the general tough exudation from the whole surface of the mantle.

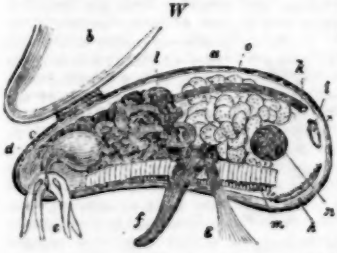
In the interior of these valves you observe impressions (*X* 3, *c*). These are called muscular impressions. They indicate the original situation of the muscle of attachment, as it is called. The position and the form of these muscular impressions are important also in the discrimination of recent and fossile species. We are speaking of skeletons where the parts are so few, and the species so numerous, that every circumstance which can be used as a means of discrimination is seized upon with avidity. These muscular impressions are left in the fossil shells, so that they are infinitely more valuable than all characters taken from colour or similar indications, which are perishable.

To us, as anatomists, these muscular impressions present a problem which we should endeavour to solve. The skeletons of which we are speaking are extra-vascular and unorganised; they are compact layers of a dead matter—the carbonate of lime. They have no fibrous structure, like living bone—no capillaries penetrate their texture,—they have no means of growth or of repair, and when once a layer is deposited, it remains through life without alteration. But this muscular impression, seen upon the skeleton, is found at no two periods of life to remain in the same position. How then does it advance? In the young state of the shell the muscular impression was necessarily small and far backwards—near to the small hinge, in the rudimentary condition of the shell. But as the animal advanced in life, we find that this muscular impression enlarged, and advanced towards the free margin of the shell. It indicates a portion of the shell that was covered interiorly by the insertion of the muscular fibres—straight parallel muscular fibres that passed from the one valve to the other. It indicates a portion of the shell to which the mantle that secreted the shell could not reach. That is the nature of this deep impression. It indicates, therefore, the magnitude, as well as the position, and the form, of the muscle of attachment. It is in the changes then of the living muscle of attachment itself that we are to seek for the theory of the changes in the position and in the form of the muscular impressions seen on the dead shell.

The muscular fibres are absorbed gradually in the posterior parts, because they are organised and permeated in all directions by capillaries that serve for their growth, and for their absorption. These living irritable fibres, fixed to the shells, are absorbed around the posterior margin of the muscle of attachment, and fresh muscular fibres are developed, and extend around the anterior and larger border. These anterior new and soft muscular fibres, attached to the last layer of the shell, cover that portion, and prevent the mantle from touching it. The muscular impression is therefore always deeper behind than before. The mantle goes on, however, to secrete calcareous matter beyond the muscles that were there extended, and continues thus to extend the margins of the shell. It is by this, then,—the extension of the new muscular fibres anteriorly, and the continual absorption of those behind,—that the muscular impressions of the shell advance. The posterior margin of the muscular impressions, when the fibres have been removed, becomes covered and obliterated by new layers

from the mantle, which now extends over that part. The posterior part of the muscle of attachment is generally more white and tendinous than the anterior and newer portion; but I see no reason to suppose, with MECKEL, that the anterior part of the ligament which connects the valves is muscular, and the posterior part alone tendinous and fibrous.

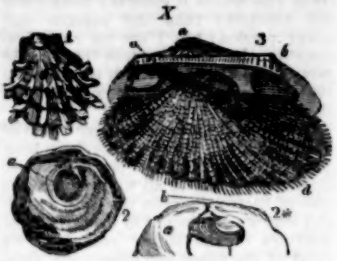
The parts of these shells have received various names. Those names have been given to the different parts of these skeletons by almost all writers since the time of REAUMUR, upon the same principles that we give names to the parts of the skeletons of the higher animals. We speak of the upper and lower; the anterior and posterior; right and left; with relation to the fleshy soft parts of the body. So with regard to the most essential organs, we apply the names, not fancifully, not by placing at random the shell in a position which might appear the most convenient for it to rest upon, but we seek the position which the shell occupied when the animal was alive and contained within it, and as if the animal were moving forwards from us. To make this perfectly plain, I take an example in the common *muscle* (*W*), in order to observe what in the organization of this bivalved animal might be considered as analogous to the head, or to the anterior part of the body—what part is analogous to the back—what part is analogous to the abdominal surface,—that we may thus arrive at a knowledge of the precise position of the valves in the living inhabitant. We ob-



serve that near to the hinge of the shell (*c*) is placed the stomach (*d*), with the short œsophageal opening of the stomach, and with its two lips developed (*e*). There is the great lateral development of the upper and lower lips, like two pairs of long labial tentacula. We can trace the intestinal canal, after making convolutions through the liver (*l*), along the upper margin of the valves, to that portion of the valves which is most remote from the hinge (*a*, *k*)—the hinge (*c*) being the fixed point of rotation in bivalvia. The anal orifice (*i*) is placed, in the conchiferous animals, always near to the most open part of the two valves; and you know already that the most open part is that most remote from the hinge and the ligament. In this muscle the heart is placed in the middle of the back, the ovary (*o*) is below it, the muscle of attachment (*n*) is behind and below it, and the four pectinated laminæ of the branchiæ (*m*) hang down on the ventral side of the cavity of the mantle. The respiratory, ciliated, fringed, orifice (*h*), for admitting the water to the branchiæ, is below the anal aperture. at the posterior margin of the shell, and from this anal orifice the water rushes out with a smooth and equable current. In the middle of the ventral surface you perceive the tongue-shaped dark-brown foot of the animal (*f*) extending forward, and behind the base of this foot is the orifice of the glandular organ for secreting the soft transparent albuminous matter, which so quickly hardens after its formation, and forms those strong filaments called the *byssus* (*g*), by which the more delicate bivalved testacea are enabled to fix themselves and protect their thin covering from destruction. The *mantle* on each side hangs over all these parts, and lines and secretes the layers of the two *valves* (*a b*). We have, therefore, the anterior extremity of the valves of the *muscle* near the mouth of the animal; we have the posterior margin at the anal orifice; we have the upper or dorsal margin of the valves extending from the hinge along the convex surface to the anal orifice; we have the lower or ventral margin of the valves extending from the mouth along the abdominal surface of the animal to the respiratory orifice—to that orifice through which the water is taken for respiration to aerate the branchial organs,—for all these conchiferous animals are aquatic, and most of them marine. We have thus not only the parts of a single valve, but you observe we have a distinction between the *right* and the *left* valves; so that there is nothing arbitrary in our names of right and left, of upper and lower, of anterior and posterior margins. I point out these circumstances, because it is of great importance in the study of conchology—a study now of such vast extent and of such importance as connected with geology,—to have a definite and precise language, which can only be arrived at by establishing the names and character of the parts upon the same principles upon which they are applied to all other forms of the skeleton.

There are yet some parts which might at first perplex the anatomist to account

for their growth in this dead unorganised skeleton. The exterior surface of the valves of conchifera are frequently found covered with *spines*, as in this *spondylus* (*X* 1), and yet we know that these spines project from the dead mass, and that they are themselves perfectly unorganised and extravascular; how then could they grow? You will recal to your mind what we saw on the surface of the echinoderma,—the spines of the *cidaris* and *echinus*,—and you might at first imagine that these spines of conchifera, perhaps, were attached by a living, fleshy, enveloping, secreting substance to the surface of the valves, and that the living, fleshy, investing substance, after having formed them, might of itself become calcified, and so anchylose the spines to the shell. When we examine, however, the margins of these shells, we observe that they present inequalities which are often in the form of elevations or grooves, and sometimes in the form of tubes, through which processes or folds of the mantle extend, and which processes, in fact, form those projecting parts. When the new layers, however, of the shell extend forward, those projecting parts which were processes of the margin are left upon the outer surface, and thus we account for their growth. Thence it is that you discover this regularity in the arrangement of those exterior spines and processes upon the surface of the shells, for they indicate by their regular arrangement the original margins of the valves at a former period of life (*X*). The various and diversified forms presented by those skeletons of conchifera, you can observe by the series of specimens placed before you, I having selected out of the collection the most diversified and interesting of this class of molluscous animals. The greater number have the right and the left valves formed alike, as these specimens of the *cardium*, the *venus*, the *mactra*, the *solen*, the *pholas*, and are thence termed equivalve. Some, as the *tridacna*, are subequivalve, or have the valves nearly alike, and others, as the *ostrea*, the *anomia* (*X* 2), the *terebratula*, have the two valves very unlike each other, and are said then to be inequivalve. Those which have the valves much extended forwards and backwards from the hinge, have generally two strong muscular impressions at a distance from each other, as you see in the *tellina*, *arca*, (*X* 3), *anodonta*, and are thence termed *dimyaria*. Where the shells are little extended in a longitudinal direction, and have their greatest length from the hinge to the ventral margin, as the *spondylus* (*X* 1), the *ostrea*, the *anomia*, there is generally but one distinct muscular impression, one muscle of attachment, and they are termed *monomyaria*. In many *bivalvia*, as in the common *arca barbata* (*X* 3) of the



European coasts, the margins of the successive layers of the exterior epidermis extend freely outwards, and give a soft villous covering (*X* 3, *d*) to the valves. This villous covering is formed in the same manner as the smooth adhering epidermic covering, and the ligament itself, by the ordinary secretion from the outer surface of the mantle, unconsolidated or unmixed with the earthy matter of the shells. This exterior epidermis is as extravascular as the shells which it covers, and, therefore, grows only by the extension of successive layers from the margin of each new layer of the shell with which it is continuous. The successive layers of the shell often are slightly connected with each other, and have their margins extending loosely from the surface, producing the laminated appearance you observe on the surface of the *chama* (*V*), the *ostrea*, the *spondylus*, the *anomia*, and many more of these conchifera, and marking well the limits of each new deposit of earthy matter. The

colouring matter on the surface of the valves is deposited, as in all similar cases after the formation of the epidermis, when that cuticle exists, and exterior to the new calcareous layer of the shell. In some of these shells, however, the colouring matter, as in the common *muscle* and the *pinna*, is intimately mixed with the calcareous matter; and from this colouring matter being driven off or destroyed by heat, it appears not to depend on any mineral ingredient of the shell, but on some peculiar animal matter, as in the corals and other earthy deposits, due to animal life. From the nature and the mode of formation of the epidermis, which is only a part of the common ingredients of the solid shell, it is obvious that on the surface of some shells it may not form a separate layer, and this is chiefly the case

with those shells which have a very compact and porcellanous texture, as the *tellina*, the *mactra*, and many other smooth and highly-coloured shells.

Many shells of conchifera display great beauty in their outward colouring, and from their smooth, glassy, pearly, or shining metallic lustre, are often used for ornamental purposes. The rich pearls of commerce, and the mother-of-pearl, are derived from the skeletons of this class. The byssus of the *pinnæ*, and other bivalvia, are manufactured, like silk, for ornamental objects. Many of the rude inhabitants of the South Sea islands, and other maritime countries, make ornaments, and clothing, and armour, by uniting and fixing together these shells. They are burnt for mortar, or used for manure, where limestone is scarce or inaccessible, and the animals which inhabit them are often highly prized as articles of food, and afford a considerable revenue to the state. They form whole strata by being accumulated in hollows of the deep, which strata are afterwards raised by volcanic force to form the summits of mountain ridges. The living conchifera often perforate and destroy the solid strata along the coasts of the sea, and in the same manner they attack and destroy wood erections of all kinds on the sea-shore, or perforate and endanger vessels on long voyages.

The newly-formed, waved, inner layers of shells of conchifera, are generally more pellucid than the exterior layers which have been formed at a remoter period. The inner layers have generally a nacrious lustre, and a greater degree of transparency. Some are much more pellucid than others. In the pearl oysters, and those shells which are used for the manufacture of ornamental objects, the pellucid nacrious layers compose the greater part of the thin shells of those animals. The exterior layers, which have been longest acted upon by the water, the sands, the gravel, and other bodies rolling over them, are rendered opaque; and upon removing the opaque surface, and leaving the other parts, we obtain the remaining shell of a beautiful pearly substance, which constitutes in fact the mother-of-pearl of commerce. When the surface of the mantle is irritated at any particular point, as, for instance, by the perforation of minute marine animals through the shell, the mantle at that point where it is irritated throws out a larger quantity of the nacrious matter. Thus we find that the perforating worms, when they arrive at the last layer of the shell, and come into contact with the fleshy matter that secretes the shell, excite the mantle to throw out matter to cover the openings they are making. Here then we find the inner surface of this shell covered with these projecting, shining, beautiful, nacrious prominences, and, externally to them, opaque layers, with innumerable perforations, which have been made by the living worms. But when substances, as particles of sand, have gained an admission,—whether by such apertures perforated through the shell, or by the open margins of the shell,—between the mantle and the last-formed layer of the shell, they become enveloped by the same nacrious substance which embraces them, surrounds them in successive layers, and so far prevents them from irritating the surface of the mantle; for those foreign particles presenting their sharp edges to the mantle, and being altogether of a different composition from the inner nacrious layer of the shell to which the highly-sensible mantle is accustomed, excite that surface to throw out the mixture of carbonate of lime and animal matter with which the mantle is continually in contact through life, and thus they constitute those round detached bodies termed *pearls*, so much prized in commerce.

The unorganised nature of these skeletons is partly indicated by the foreign bodies you perceive collecting and growing upon their outer surface. We find them covered often with the calcareous skeletons of zoophytes, and of other testaceous animals, as you see upon the surface of this large *tridacna gigas*. It is covered with millepores, porites, astræ, and various other calcareous zoophytes.

There is another problem to which I wish to direct your attention in considering these skeletons; it is the power which we find the animals to possess of agglutinating these extravascular skeletons to other submarine bodies. You are familiar with the fixed condition of the oyster. The anomia, and many other shells besides these, fix to the surface of rocks and plants. There are no means possessed by the oyster, or by any bivalved animals, of fixing or cementing the valves that are already completely formed, to the surface of the extraneous bodies; they can only fix the margins of the layers they are at the instant depositing. Thus we find that the young oyster throws out a deposition of animal matter mixed with the carbonate of lime, not only to envelop its body, but to pass downwards from the lip of the concave or left valve, to attach it upon the rock. When it has thus exuded a series of layers from the surface, which pass down from the free edges of the layers and attach them in succession to the surface of the rock or other extraneous body, it ceases any longer to deposit the edges of

the layers in that descending direction; but the fresh layers which it exudes it causes to assume the ordinary form of the exterior surface of the mantle. This is a specimen of it, where it is obvious that it has kept for a time the margin of the mantle in contact with the foreign body to which it wished to adhere. Having got a sufficiently firm attachment, it raised the fleshy margin of the mantle, and continued to exude layers, which assumed the natural curved direction of the concave valve. Thus it is that you observe this mass of oyster shells, all fixed by their left valves, to have surrounded a circular piece of timber, which has remained for a time under the surface of the sea.

The *teredo navalis* is familiar to you from the ravages it commits,—from its having caused the loss of so many lives, by perforating and destroying vessels at sea, perforating and destroying the wood-erections along coasts in tropical countries in the new world, and even in Europe. These perforations it makes by means of its shells. In order, however, to protect its fleshy body from the surface of the wood while it perforates with the shell, it excretes from the whole surface of its body a calcareous solid tube. You will therefore, find, that upon making sections of timber which has thus been perforated by the *teredo navalis*, those sections exhibit to you calcareous tubes which still belong to the class *conchifera*, and which we must here, therefore, consider a part of their skeleton, although so much resembling the tubes of red-blooded worms.

We find, frequently, in a fossil state, masses of timber where the wood has been completely silicified,—converted into silica, and where the perforations are lined distinctly by the calcareous tubes of these perforating bivalved animals.

Several conchifera have, like the *teredo* and the *pholas*, supplementary calcareous pieces; thus the *anomia* (*X* 2, 2*) extends a part of its adductor muscle (*X* 2, *a*), through a circular aperture in the flat valve, to be attached to some external rock or plant, and the extremity of that projecting adductor muscle has interposed between it and the surface of the rock a small circular calcareous disk, which corresponds with the aperture in the flat valve.

You observe in this specimen of clay-stone rock, of considerable density, that there are numerous tubular perforations, which pass through its substance, and which contain animals belonging to the genus *pholas*. These pholades were alive when this rock was taken from the sea. It is not a fossil. They have perforated by means of the revolutions of their rough shell. The apertures which you see here, run in perpendicular directions through the rock. In order that they may have the surface of the shell constantly like a file, they secrete projecting layers that present an undulated free margin; and those successive undulated margins are not in contact with each other, but extend freely out, so that the whole exterior surface is rough like a file. These valves that are thus like a file upon the outer surface, inclose the most important viscera of the *pholas*; but the apertures of the organs of respiration extend through the perforations of the rock for six, seven, or even eight inches, while the shells are at the bottom of the perforations they have made. They thus reach with their respiratory sac and apertures the surface of the rock, and are thereby enabled to draw in water for respiration, and to draw in for food minute animals floating in the water. It is interesting to see this going on so extensively in the existing submarine strata, for those living perforating lithodomous animals, of which there are numerous genera, employed in thus disintegrating the rocks at the bottom of the sea, reduce the old formations to gravel, to sand, to fine particles, that are washed to great depths to form new strata hereafter to be raised above the surface of the sea. These lithodomi are interesting, therefore, to the geologist. A knowledge of the living habits of these animals is interesting in another point of view. As you observe that these perforating animals pass perpendicularly downwards through the rocks in which they are lodged, finding a stratum of rock perhaps at the top of a mountain which was perforated in former conditions of this planet by these lithodomi, you might know from an inspection of the directions of the perforations made by these animals, what was the original undisturbed position of the rock at the time when it formed the bed of the ocean. You would see whether it had now been raised perpendicularly, for in that case the *pholades*, or the other perforating animals, would be found lying horizontally. But if the rock has them still directed perpendicularly downwards, you would say that that rock remains in the same relative position which it occupied at the bottom of the sea when it was perforated by these animals.

There is another circumstance. From the flat form of many of these bivalved shells, and from their thinness, they are incapable of resting unsupported erect

upon their margins. When they are therefore strewed at the bottom of the sea, deprived of their living inhabitants, or accumulated in the deep cavities and submarine valleys, so as to compose whole strata of shelly limestone, they are found to lie in a certain method; they are disposed parallel to each other and to the surface on which they rest. From knowing that this was their original undisturbed position, and that they were afterwards covered by successive horizontal depositions of new strata, you would be able to judge regarding the future disturbances of these strata, by observing the direction in which the shelly deposits were lying. Many considerations of this kind connect the study of the history of recent conchifera with the pursuits of the geologist.

From the chemical constitution of these massive and solid skeletons of bivalvia, it is obvious that, by removing their calcareous matter by means of acids, we can obtain, in an isolated form, their softer animal matter, which appears like a translucent laminated membrane, and retains the original form of the entire shells. By burning or bleaching the entire shells, the whole of this animal matter, and their peculiar colouring substance, are removed, and the earthy part remains soft, white, friable, and retaining the original form. This is the change which they first undergo in becoming fossilised. Their colouring matter and their albuminous ingredient are first slowly carried off by the waters percolating through the beds which contain the shells. If these beds are of silicious rocks, the water generally carries away also the remaining calcareous matter of the shells in a state of solution, and leaves only the cavity which the shells originally occupied. These empty cavities in the silicious rocks, having the exact forms of the shells which are now entirely removed, are gradually filled up by finer particles of silicious matter brought by the still percolating water; and thus casts are preserved to us in the oldest sandstone rocks, presenting the minutest characters of beings which have left no other trace of their former existence on this globe. Sometimes casts only of the interior cavity are preserved. In passing downwards through the newer formations, we obtain these shells in all the intermediate stages of this process of fossilization, and it has proceeded with more or less rapidity, according to the texture and chemical composition of the embedding rock, and the abundance of percolating water, and of carbonic or other acids, which it conveys. We observe them in the upper beds, with the colouring matter but slightly faded, and the tough ligaments still connecting the valves.

In lower deposits we obtain the valves detached, the colouring matter gone, the lustre of the surface faded, and the outer layers of both surfaces white, porous, bleached, soft, and chalky. At length they assume the character of burnt shells becoming soft as chalk, exfoliating, absorbent, and presenting no trace of animal matter. But these changes, which take place after death in the skeletons of conchifera, are common to them with all other forms of the earthy skeletons of animals, from the lowest corals to the human bones. A still further change is effected in these shells, as you observe by these specimens from the chalk strata, and from the older secondary limestones. The place formerly occupied by the animal matter of the shells is gradually filled with carbonate of lime from the percolating water, and this carbonate of lime assuming the crystallised rhomboidal form, the whole texture of the shells is converted into crystallised, transparent, calcareous spar, the broken fragments of which you perceive have all a perfect rhomboidal form. It would appear by many careful observations made by geologists, that the action of intense heat and pressure on the shelly limestones, as by the bursting up of melted rocks forming veins through them, is sufficient to cause every trace of the original forms of the component shells to disappear, and to convert the whole of the heated shelly rocks into regular homogeneous crystallised limestone. This process can be imitated in our furnaces, and has probably taken place to a great extent among the oldest, and deepest, and most highly-crystallised formations, called primitive rocks. So that although we can trace organic development on the surface of this planet backwards to a great degree of simplicity in the ancient strata, we cannot hope to arrive now at the first forms which were called into being. And as development advances to new and more complex forms on the earth's surface, the oldest forms are disappearing in the deepest strata. The enveloping form, the superficial position, and the massive nature of the shells of *conchifera*, correspond with the very low condition of their nervous system, and of their organs of sense, which are the means of protection allotted to higher forms of organization.

To-morrow I shall proceed to the skeletons of the next classes of molluscous animals.

CLINICAL LECTURES

ON

DISEASES OF THE UTERUS AND ITS APPENDAGES;

NOW DELIVERING IN PARIS,

By M. LISFRANC.

GENERAL REMARKS ON THE SYMPTOMS AND TREATMENT OF DISEASES OF THE UTERUS.

We shall divide our remarks on affections of the uterus and their treatment into two parts; one comprehending sub-inflammations, engorgements, and scirrhus uteri; the other embracing the various ulcerations, vegetations, and different tumours of the neck and body, of the uterus. In order to avoid useless repetitions, we shall commence by detailing certain general symptoms and therapeutic means, which are applicable to the greater part of uterine diseases.

It is well known in the practice of medicine, that diseases do not always produce external symptoms proportionate to their degree of severity or danger. This observation is peculiarly applicable to affections of the uterus. We frequently find this organ in a state of disease, which admits no hope of cure, while the general health does not seem to suffer in the least. The complexion is yet fresh and blooming, while the patient presents nothing but a few insignificant symptoms of disorder in the generative organs. Many of the patients now in the ward *Saint-Augustin* afford sad examples of the truth of this remark. On the other hand, we observe women who are affected in a very slight manner, become thin, suffer excessive pain, and gradually waste away.

Hence the necessity of a most careful examination the moment we suspect the existence of any disease in this part of the body. In general we remark the following precursory symptoms:—The woman loses a small quantity of blood from time to time, without any pain, or has a leucorrhœa, which continues during the interval of menstruation. The breasts become slightly tumid, and she thinks this often a sign of good health. She feels some pain in the loins after walking or riding in a rough carriage. When she stands for any length of time, a sense of fatigue in the pelvis and of dragging in the loins compels her to sit down. Coition is often followed by a slight loss of blood, and excites slight pain, which may disappear quickly, or remain for one, two, or even three days. Sometimes the disease is arrested at this point, and ceases spontaneously; but more frequently the fluor albus becomes more abundant; the woman experiences pain, not usually in the uterus, but about the loins, the round and broad ligaments, or even a pain running down the back of the thighs and legs to the heels, whence it is often mistaken for a sciatica; the pain may also extend towards the umbilicus, to the flanks, or very often to the rectum, especially when the neck of the uterus, thrown backward by a slight anteversion of the organ, presses on the intestine. The floodings now succeed each other at shorter intervals; the breasts dwindle away, and a sympathetic gastro-enteritis declares itself; the patient is affected during the day by a slight fever, recurring at intervals more or less frequent, or by nervous attacks; the skin is dry; digestion becomes deranged; the woman loses flesh and complexion, and the whole skin assumes a sickly dull colour.

The disease seldom arrives at this point without a physician being consulted, and it is now easily discovered; but at other times, as has been remarked, the disorder, though hidden, increases, while the general health seems perfect, and only reveals itself on a sudden with alarming symptoms; digestion is interrupted, and the patient is afflicted with excessive pain; hemorrhage now sets in and recurs frequently; the skin becomes dry and earthy coloured; finally, a colliquative diarrhœa makes its appearance, and terminates the scene generally in one or two months after the appearance of the first symptoms. Death may take place even within twenty-four hours from perforation of the uterus and peritonitis.

I have occasion to see every year at least twenty examples of uterine affections which march in this insidious manner. Not long ago I was called to the wife of a musical professor in this city, who was fresh and young, and might pass for one of the handsomest women in Paris. M. Moreau, who had already seen the lady, wished to have my advice; I touched her, and found that the uterus was reduced to a putrid mass, in which the finger readily sunk. There was no resource left; it became necessary to acquaint the family with the dangerous state in which she was, but they could not be persuaded that we were not in error: in a few months afterwards the lady was dead.

Series of General Remedies applicable in Diseases of the Uterus.

Let us suppose that the physician has been called upon in sufficient time to be useful; whatever affection he may discover by aid of the speculum or the toucher, there is a certain series of general remedies applicable to all, the value of which we shall now examine separately. Thus, when the disease is acute, we have baths, repose, injections, clysters, bloodletting, cataplasms, drinks, and regimen. In chronic cases we have blisters, cupping-glasses, douches, excretories, and compression. Of these I shall now speak.

Baths.—The greater number of physicians prescribe emollient hip-baths even in acute affections of the uterus; I reject them in every case, as the greatest absurdity which can be committed in therapeutics. What! do we prescribe a foot-bath in headach in order to draw the blood towards the lower part of the body? and in an affection of the pelvic organs, should we not hesitate to attract the blood towards the pelvis? Yet such is evidently the effect produced by hip-baths, as is proved by their influence in bringing on menstruation when arrested. But laying aside theory, let us consult experience. Almost always after a hip-bath the patient complains of greater pain and more weight about the pelvis. Hence I never use it, except when I wish to excite, which is quite a different thing; and I do not hesitate to affirm, that a single hip-bath prescribed according to the common and prevailing views, is sufficient to destroy any good effect which may have been produced by any previous treatment, however well directed. Baths in which the whole body is immersed, either warm, or at a temperature agreeable to the feelings of the patient, are the only ones applicable to uterine disease. Simple water is sufficient; the emollient decoctions and gelatine, which are after added, only increase the expense without presenting any advantage. The woman should remain in the bath two, three, four, five, or even six hours consecutively. If she remain only half an hour or an hour, the bath becomes rather a means of excitement. In fact, if we examine the pulse on entering a bath, and examine it again some time afterwards, we shall almost invariably find it increased in force and frequency. Respiration becomes accelerated with the pulse, the cutaneous exhalation is augmented, the head feels heavy, and a desire to sleep is experienced: prolong the bath, and this state of excitement gives way to one of calm, constituting, if we may so express it, the antiphlogistic period of the bath. It is, therefore, absolutely necessary to prolong the bath for a considerable period, however, to avoid *ennui*; we may order one of three hours' duration for the morning, and another of similar length in the evening. But in some cases the use of a bath, however prolonged, irritates the nerves, and some women feel a disposition to faint the moment they enter one. We may pay attention to these peculiarities of constitution, and either diminish the number and duration of the baths, or abstain altogether from their employment.

Repose.—Absolute rest is indispensable. I have often tried every other method, without insisting on repose, but in most cases, especially when walking gave rise to slight pain, all our means were unsuccessful. I treated a woman in the Rue St. Martin during six months; but in spite of all my care the disease increased. She assured me that she observed the strictest repose, and I was at a loss to explain this want of success, when some people in the house informed me, that she walked about her chamber every day, which, according to her view, was not taking exercise. I placed her for two months under the care of two trust-worthy persons who prevented her from walking, and the consequence has been, that her health is now infinitely improved. It is not repose in bed of which I now speak; the bed causes warmth, determines congestion to the pelvis. We all know how it excites erection of the penis, which cannot be attributed to fulness of the bladder, as it equally takes place when the bladder is empty. The patient should rest on a couch, lying down and not sitting, and should be carried thither from bed, to avoid the exercise of walking to it. But to this rule there are exceptions: some women cannot digest their food while at rest, in others it increases the nervous symptoms; and in many it causes cessation of the catamenia. Exercise of some kind becomes necessary in these cases, and walking is in general preferable to the motion of a carriage however lightly hung. The period of menstruation should be selected as the time for exercise, as then the pain is generally alleviated or diminished; but should the woman suffer more at this period, as may happen, rest is more than ever absolutely necessary.

Injections.—The nature of injections employed, varies according to that of the disease; they are made of emollient, astringent, detergent substances, or a solution of chloride of lime may be used in cases

of fetid cancer. The liquid should not be too hot lest it cause congestion, or too cold for fear of reaction. Fifteen or twenty degrees (Reaumur) is a proper temperature. To throw up the injection I generally prefer a middle-sized syringe, armed with a gum-elastic canula, about the size of the little-finger, and previously oiled. In order to obtain the greatest possible advantage from injections, the vagina should first be cleaned out with a common injection; the woman should then be placed in a supine position, with the pelvis somewhat raised, so as to form an angle of 35 or 30 degrees with the horizon; by this means the vagina represents an inclined plane, the lowest point of which touches the neck of the uterus. The canula should be introduced into the vagina to the depth of an inch or eighteen lines, or even less in cases of prolapsus, to avoid striking the end of the instrument against the neck of the uterus, and the handle of the syringe pushed forward with extreme slowness. The vagina usually contains five or six spoonfuls of liquid, which accumulates round the neck of the uterus, as the most depending point, and there forms a kind of local bath, which may be applied ten minutes for the first time, and afterwards for a quarter of an hour. The injection may be repeated three or four times a day. In some cases the external orifice of the vagina will close round the tube, so as to prevent completely the return of the fluid. Here we should avoid pushing the injection too strongly, lest it increase still further the reaction of the canal. Injections may also be administered with great advantage while the woman is in a bath, and then the supine posture is not necessary, for the pressure of the water opposes a sufficient obstacle to the escape of the injection. In spite of these precautions, there are some women who suffer a great deal whenever injections are thrown up the vagina; the introduction of the tube is painful, or the vagina contracts on the liquid, and does not keep the slightest quantity. These symptoms are most frequently seen a few days before and after menstruation, but we must still employ the injections, unless contra-indicated by the excessive suffering which they may produce. The entrance of the vagina will become accustomed to the tube, but it may be prudent to throw them up less frequently as long as this state of irritability lasts. Some patients complain of injections rendering their condition worse; but the practitioner will do well to assure himself that it is not dislike to the operation which produces these complaints before he determine on discontinuing so useful a remedy.

Lotions to the Vulva.—The vagina may in some cases be filled up with vegetations, which are very irritable, and bleed on the least contact. Here injections should be replaced by the use of lotions to the vulva. The labia majora are to be gently separated, and a sponge steeped in some medicated fluid should be applied to the orifice of the vagina, avoiding every kind of pressure or friction in applying or withdrawing the sponge.

Cataplasms to the Vagina. — We have been recommended to pass into the vagina cataplasms nearly in a liquid state, and I have praised this means myself, trusting too much to the account of those who affirmed they had derived great advantage from its employment; but I have long since renounced cataplasms applied in this way, for the following reasons. In the first place, women have a great dislike to them; besides, injections when retained for ten minutes or more, are just as efficacious. But my chief objection is, that we cannot completely remove the cataplasm from the vagina when its office is done; though I have vainly forbidden their use, for two or three days before the application of the speculum, and the evening before have thrown up numerous injections, there always remained some remnant of the cataplasm, which I was compelled to remove with a forceps. Finally, if a cataplasm applied to the skin ferments in a few hours, what must be the case in the vagina where the temperature is higher and where various secretions must further give rise to decomposition? An old practice has been recently revived and much praised, which consists in introducing, by the aid of a speculum, a bit of lint, moistened in some medicated fluid, and placing it near the neck of the uterus. I do not presume to contradict the success said to be obtained by this means; it may, perhaps, be applied with advantage to prostitutes, where the genital organs have lost a great part of their sensibility, but in private practice I would never recommend its use. About eight or nine years ago I made some experiment with the lint, and in almost every case it gave rise to so much irritation and pain, that I was very glad to remove it as quickly as possible.

Irrigation.—Irrigations are more active than simple injections, but less so than effusions; we, therefore, employ them whenever the irritation is too great to permit the use of the latter. The effect of an irrigation may be produced by throwing up eight or ten injections quickly, one after the other; but, as the reintroduction of the tube might be painful, it is much better to

make use of a large syringe, and inject a large quantity, gently, twice a day.

Affusions.—These are a powerful resolvent, and an energetic stimulant. They should never be employed, except when the disease has passed to the chronic stage, and no pain exists. The effect of affusion would be highly dangerous in cases of inflammation or sub-inflammation. Affusion may be administered at the patient's residence, either with the ingenious apparatus of MM. Charriere and Deleuil, or by placing a large vessel filled with water at some distance above the patient's head, and joining to it a flexible tube. The jet of water will of course be the stronger in proportion to the elevation of the vessel. Affusions are either simple or medicated, irrigatory, or in form of a jet, ascending, descending, or horizontal. They may be directed round the pelvis, or into the vagina, even as far as the os uteri; in the latter case the tube should be introduced with the same care as for injection. Affusions are commonly administered nearly cold, at first irrigatory and directed upward, in order to render the jet more easily supported and less violent. We may commence by a fall of three feet, then four, or six, measuring the force by the effect produced. One a day is sufficient to begin with, after which we may give two, three, or even more. If the woman feels some heat and pain after the affusion, which disappear in five or six minutes, the excitement has been carried to the proper degree, and the remedy may be continued; but should the pain continue for a longer time, it is a proof that the disease is still in an acute stage, and we must have recourse to more mild measures.

Lavements.—These should be administered every now and then, so as to keep the bowels properly free. Constipation is doubly injurious, both as producing a painful pressure on the uterus, and on account of the efforts which the patient is compelled to make whenever she goes to stool. It may be asked, why would not laxatives, administered by the mouth fulfil the same object? The reason is this: in affections of the uterus, it is a matter of the greatest importance not to irritate the digestive organs, and experience has convinced me that lavements are in this respect absolutely necessary.

Narcotics.—These are often useful in calming those violent nervous pains which so frequently accompany affections of the uterus. They may be administered by the mouth, or by friction on the perineum, groin, upper part of the thighs, or, still better, by means of a small blister, according to the endermic method; but the most efficacious way of administering them is, incontestably, by the rectum. It might appear, at first sight, more natural to inject them into the vagina; but Cullerier has observed that laudanum applied in injection to painful chancres, produced inflammation of the vagina; and experience has sufficiently proved, that narcotics are apt to give rise to nervous or inflammatory accidents when introduced into the vagina, while their effect on the system is considerably diminished. Laudanum is preferred as an internal remedy; belladonna, in the form of extract, diluted with a small quantity of water, answers for friction, and the salts of morphine to apply after blisters. A great deal has been said on the various effects produced by narcotics, according to their preparations and the constitution of the patient; and on the necessity of varying them, until a proper one has been discovered. Some women cannot support them. I am at present treating a woman in whom a quarter of a grain of belladonna in a lavement produces gaiety and drunkenness analogous to that of Champagne wine, and this lasts during the whole night. But even in those cases we must not give up the remedy; it is only necessary to administer it in a smaller dose; thus we may commence by a half-drop, or drop, of laudanum, in a clyster, and I have often seen patients in private practice quieted by this means. By degrees the constitution becomes accustomed to the remedy; the dose is augmented, and it is not rare to see individuals who had commenced by taking a fraction of a grain of opium, end by supporting one hundred grains in the twenty-four hours.

Bloodletting.—While the disease of the uterus is in an acute or subacute state, most practitioners advise local bleeding by means of leeches placed round the pelvis, and to the upper and inner part of the thighs, or especially to the os uteri, by means of a speculum. This question of local bloodletting is very important, and does not appear to me to be well understood. In most cases, when I am called into town for affections of this kind, I find that leeches have been applied by the physician already in attendance. If we question the patient with care, twenty to one but she has suffered more uneasiness, heat, and weight, about the pelvis, since the leeches were applied. I was called a few days ago to see a female to whom thirty leeches had been applied. Although they had drawn a good deal of blood, they were succeeded by excessive pain, and even by convulsions. A few rare cases of success

cannot be allowed to influence us in favour of leeches, the good effects sometimes produced by which are only exceptions to the general rule. Four or five years back, being desirous to throw some light on this question by direct experiment, I made numerous trials of local and general bloodletting in this hospital. Ten women were treated by abstraction of blood from the arm, ten others by the application of leeches to the vagina; the former were invariably more improved than the latter, who seemed to suffer rather than to be benefited by the local bleeding. These experiments were repeated on a great number of patients, and my conviction on the matter is complete. Besides, the result accords well with theory. Is it not a principle of the physiological school, that leeches are proper for membranous inflammations, and general bleeding for parenchymatous ones? Local bleeding, however copious, determines new congestions toward parenchymatous organs. In the case of several females affected with scirrhous tumours of the breast, M. Costen has seen the application of leeches produce pulmonary congestion, with palpitation of the heart similar to that of aneurysm; these symptoms were removed by a bleeding from the foot. M. Margat has observed cerebral congestion brought on by the application of leeches to white swellings of the superior extremities, which were equally dissipated by a bleeding from the feet, a proof that the accident depended on sanguineous congestion, and not on simple nervous irritation. Similar facts have been observed in this hospital, and the womb, more than any other viscus, already accustomed to periodic congestions, is subject to become engorged on the least irritation. But it may be asked, have leeches, applied about the pelvis, really this effect? Every practitioner knows, that the best means of bringing on menstruation, is to apply frequently a small number of leeches to the vagina, and not to permit the orifices to bleed. Hence, if we hope to produce any antiphlogistic effect by leeches, they must be applied in very great numbers, and should be preceded by at least one general bleeding; however, if they be applied near the pelvis, there will always remain more or less congestion of the uterus. But, say they, the leeches may be applied to the neck of the uterus; yet this is a point where their number cannot be increased according to the will, and should we succeed in applying twenty, which is a great deal, the blood drawn away will not be sufficient to dissipate the afflux of fluids towards the organ. For my part I reject the use of leeches in every case of uterine affection, whether acute or subacute. The only circumstances which induce me to depart from this rule are—1st. When a peritonitis co-exists with the inflammation of the womb, because leeches are positively indicated when inflammation attacks a membranous tissue; 2nd. When the inflammation has passed to a chronic state; but here we prescribe them, not as an antiphlogistic, but to excite and resolve. Yet, even here, there may be an exception; for, whenever the neck of the uterus seems to be affected with scirrhus, we avoid applying leeches, at least immediately, to it; experience having too often taught us that the bites are easily changed into as many cancerous ulcerations; the same phenomenon is observed when the skin adheres to a scirrhous breast, and when leeches are applied to it. The ancients had therefore just grounds for preferring bleeding from the arm in cases of uterine irritation. It disgorges the uterine vessels, with the same facility that it puts a stop to floodings, while local bleeding, on the contrary, augments them. This fact is so well known, that physicians who do not hesitate to prescribe leeches with so much confidence for simple uterine congestion, do not dare to apply them when such congestion is accompanied by hemorrhage, for fear of increasing it, which proves how little their reasoning is supported by general facts. For my part I confine my practice to bleeding from the arm, avoiding to take away blood seven or eight days before the menstrual period, lest it may interfere with that function; but after the cessation of the discharge, if any pain remain, or any weight about the pelvis, indicating a persistence of uterine congestion, a revulsive bleeding practised twenty-three hours after the stoppage of the catamenia, often dissipates the pain like a charm, particularly if we employ with it an anodyne lavement. Should the pain precede menstruation, instead of coming on after it, we must wait until the middle of the month. When it is altogether independent of menstruation, appearing during the intervals of the discharge, bloodletting may be repeated two or three times during the month. The state of weakness depending in most cases on the pain which deprives the patient of sleep and appetite, far from being a contra-indication, requires more essentially the remedy of which we speak. There are, however, certain peculiarities of constitution which compel us to modify these principles. Thus, in treating, in a former lecture, of the means proper to bring on menstruation, we noticed that when a woman is strong, venesection will induce the catamenia almost at once; in other

cases a revulsive bleeding brings on flooding. I have lately seen an example of the latter, produced by an abstraction of four ounces of blood. These are undoubtedly rare exceptions, but we should not lose sight of them. In such cases, general, and, *a fortiori*, local, bleeding should be avoided. Some females, essentially nervous, cannot support bleeding, without suffering various unpleasant nervous accidents. Here the quantity of blood taken away may be diminished to a very few ounces, and this precaution sometimes succeeds; but should the same accidents occur, we must give up the idea of bleeding altogether. If we except these cases, venesection, aided by narcotics, is the surest means of calming and removing the pain. This idea is not new. Stahl had long ago remarked, that in cases of cancer, the patient experienced a marked amelioration whenever the veins gave way. You have often seen me, gentlemen, prescribe bleeding to twenty women at the same time, in this hospital; fifteen of them, at least, are benefited; the pains disappear for a longer or shorter period, unless some foreign influence, as a moral affection, or a change of atmosphere, interrupt the action of the remedy. In this very ward we have supported a woman for ten years who was affected with a very dangerous uterine disease, not so much by employing narcotics as by repeated small bleedings, varying from two to six ounces, according to the strength of the patient. When the disorganization of the uterus is very far advanced, and accompanied by the discharge of cancerous matter, the quantity of blood drawn should be very small, in order to avoid the danger of facilitating its absorption. If the patient be very feeble, if we remark any symptoms of indifference, a tendency to sleep, or stupidity, in a word, if adynamia exist, we must avoid employing venesection altogether, as a means which can only hasten the fate of the patient.

The treatment with cupping-glasses, blisters, &c., must for the present be deferred.

AMPUTATION IN AN INFANT.

To the Editor of THE LANCET.

SIR,—The subjoined case has been handed to me by a Member of the Council of the Royal College of Surgeons in London, with a view to its publication in THE LANCET. It was originally intended for publication by the College, but as this course has not been deemed expedient, the gentleman in question is desirous that the utmost publicity may be given to the case through the medium of "The leading Medical Journal."

The case (an amputation of the thigh at nine weeks) possesses its pecular interest from the early age of the patient operated on, and I am informed no member of the college senate is cognizant of a similarly severe operation performed on one so young, not even the veteran Sir Astley, nor that patriarchal English surgeon the venerable Sir William Blizard. I am, Sir, your obedient servant,

GEORGE FREDERICK KNOX.

14, George-street, Adelphi,
Dec. 9, 1833.

CASE OF

CONGENITAL FUNGUS HÆMATODES,

IN WHICH

AMPUTATION OF THE THIGH

WAS PERFORMED IN THE TENTH WEEK OF THE CHILD'S LIFE.

With Remarks.

By JOHN PAUL, *M.D., Surgeon to Gray's Hospital, Elgin.*

A MALE child, seven weeks old, was brought to me by his parents in the month of September, with an enormous swelling of the right leg, which had all the characteristic marks of fungus hæmatodes. The swelling was soft and elastic, bulged out in various parts, and presented a livid hue at the most depending point, with enlarged cutaneous veins. At birth two tumours were observable, the one running into the other; the lower one was said to be about the size of a turkey's egg, and the other somewhat less. The child's health was tolerably good.

The whole leg being involved in the morbid action of the disease, nothing but amputation above the knee even required the consideration of a moment, and the patient being so young this alternative was deemed almost too desperate; at least some delay was thought prudent. The parents were therefore advised to take their child home, and return when the swelling burst.

They had not been at home many days when the swelling did burst, and so profuse was the hæmorrhage that in less than one minute the infant was in a state of syncope, and for two days life appeared to be almost extinct, so much were the vital endowments depressed. The hemorrhage was controlled by pressure, and the little patient rallied after a few days.

He was admitted into *Gray's Hospital,*

on the 3rd of October, and at this time, although not three weeks since I had seen him, it was manifest the disease was in progress. The swelling hung down from the malleolus internus on a line with the sole of the foot, and extended to the internal condyle of the femur. In the ivid portion of the swelling ulceration had taken place, and a fungus, in appearance like brain, with portions of blood on its surface, had sprung up. It was two inches and a half in diameter, and the skin around its circumference appeared red and inflamed. The circumference of the limb across the fungus was eleven inches and a half, and nine and a half close to the knee. No part of the tibia could be discovered except close to the ankle-joint; the fibula could be traced, but there was an immense covering of dense and elastic cellular texture over it. The child looked pale, and the discharges from his bowels were profuse and of a greenish colour.

The following day, Oct. 4, with the assistance of Mr. William Robb and Mr. Robert Paterson, surgeons, and Mr. John Grigor, student in medicine, I amputated the limb above the knee, and used two lateral flaps. Scarcely a tablespoonful of blood was lost. About the same number of arteries as in the adult were secured, and whilst they were being secured the blood effused on the stump coagulated readily. The flaps were kept in apposition by means of stitches.

On the operation being finished, I remarked to the gentlemen who assisted me that there was less vital depression than is generally observable in the adult after a similar operation. The child sucked almost immediately, and passed a tolerably quiet night. He now improved daily, and took abundance of nourishment. The ligatures were all away by the tenth day after the operation, and the greater portion of the stump had united.

Everything went on prosperously until the 19th, but on that day the stump, though the wound was nearly healed, was observed to be fuller, and the child was very fretful. The granulations had been twice touched with nitrate of silver.

Vespere. The child has been in great pain, and cried a great deal. The stump is glistening and is more tense. The spirit-lotion was applied.

20. Stump very tense and hot; little discharge; the patient has been well purged with *ol. ricini.* Applicetur cataplasma lini.

21. Stump more swelled, and a blush of erysipelatous redness over it. Edges of the wound appear livid. Discontinue the poultice, and let the spirit-lotion be substituted.

22. The patient was easier last night and slept better. Stump very tense, and redness extending upwards. Discharge scanty, but purulent. Tepid Goulard, with a small proportion of laudanum to be used.

23. Erysipelatous inflammation is extending to the scrotum and abdomen. The affected parts to be occasionally fomented with decoction of poppy-heads, and the spirit-lotion then used tepid.

24. Scrotum frightfully distended, very red and hot. The inflammation is extending up the back and across the abdomen. The nurse has applied flour to the body. One grain of quinine was ordered to be mixed up in an ounce of syrup, and a teaspoonful to be given occasionally. A little port wine-and-water allowed.

26. Inflammation appears to be greatly subsiding over the body, but still continues in the left thigh. Scrotum enormously swollen; red, hot, and painful. On one point there is a livid appearance.

27. No change. Takes *Quinine* and also *Hydr. cum Creta* in small doses.

28. A good deal of inflammation in left thigh and leg. Scrotum rather less. The livid part has ulcerated, and a considerable quantity of serum has oozed out. The inflammation has in a great measure left the stump.

29. Some appearance of redness about the chest.

30. Less of the redness about the chest; but a higher degree of irritative fever.

31. Stump entirely free from inflammation, and the swelling almost entirely fallen. The wound is healthy enough in appearance; only the granulations look very pale. Fever equally high, and the bowels very much relaxed.

Nov. 1. Fever continues equally high, and the relaxation of the bowels can scarcely be controlled by opiates. Deglutition difficult; breathing extremely rapid and oppressed; refuses to suck.

2. Died at nine o'clock in the evening.

Remarks.

On perusing this case, the first thing that will suggest itself to an inquiring mind, is, whether I was justified or not in removing the limb. Experience was wanting to show whether, at so early an age, the patient would even rally from the shock of the operation; and if he did, whether there was any rational chance of a favourable termination; for, so far as my information and inquiries extend, there is not a parallel case to be found in the records of surgery. Though, in the event of having recourse to amputation, there was no experience to afford any data

from which a result favourable or unfavourable was deducible; it was at the same time sufficient to show that without this alternative, death was not only inevitable but at hand. However useful experience may be, if a surgeon will undertake nothing but under this guidance, it is evident that surgery must remain stationary, in place of being progressive to a still higher degree of perfection than it has yet arrived at. Human life, at its different epochs, may not possess the same value; the life of an infant, *ceteris paribus*, is not equal to that of an adult; yet it is the grand and engrossing object of the healing art to preserve it under all circumstances. No one surely will contend that an infant, although only a few weeks old, is to be consigned to inevitable death, if the smallest prospect of saving its life can be held out, even by the amputation of a limb; for on the life of an infant much may depend—much of domestic happiness and prosperity; nay, the very tranquillity of a nation might hinge upon it. If an infant recover from the immediate effects of amputation, I am not aware of any other legitimate objection that can be urged against it, for then there can be no doubt but that the youthful patient will grow and advance to maturity, and in due time be able to use the same artificial aid as if the operation had been done at a more advanced period of life.

Influenced by these views, I attempted amputation in the case which I now with deference submit to the consideration of the profession, and although the termination has not been what I ardently wished for, yet in a surgical point of view the result is of the same high importance as if the patient had lived, for it establishes, beyond the possibility of doubt, that amputation may be undertaken at the early age of nine weeks with fair prospects of success.

The child was only nine weeks and five days old when operated on. I have already remarked that the blood effused on the stump coagulated readily: the coagulation was certainly firm and adhesive. The union of the flaps by the first intention was to as great an extent as I have generally witnessed under the most favourable circumstances. These are facts worthy of notice, because they are not a little at variance with medical observation.* No stump ever did better for the first fortnight; it was in reality so nearly healed, that I begged of the mother to remain only another week in the hospital. The child on his admission had profuse greenish-coloured stools, but the action of the bowels became quite natural after the limb was removed; indeed, all the functions were then performed in a healthful manner. He took nourishment in sufficient quantity, and evidently gained flesh daily, till the stump was attacked with erysipelas. At this time one of the nurses in the hospital laboured under erysipelas in a very aggravated form in one of the lower extremities, and the mother of the child had, unfortunately, and without my knowledge, not only been in the habit of going into the ward where this nurse was, but of actually sitting on the side of her bed, and of allowing her to have the child in her arms. To my mind the evidence is here quite conclusive, that the disease was communicated to the child by the sick nurse.

I am aware that the communicability of erysipelas is called in question by some; but facts, I think, preponderate in favour of its being occasionally transmitted from one person to another. Erysipelas occurring in the very young and very old, is always attended with imminent peril to life; and from an attack so severe as in the present case, without even a previous wound, recovery could not reasonably be expected. Had it not, then, been for the supervention of erysipelas, whether communicated or accidental, it will at once, I think, be conceded, that the patient was safe from the consequences of the amputation; and this fact is of no ordinary value, because it shows, so far at least as the result of one case can be relied on, that an operation of such serious import as amputation of the thigh may be undertaken with well-founded prospects of success at the early age already specified, when disease or accident may require it.

The irritability of the infantile system, no doubt, is a powerful objection to surgical operations; but this objection must not be allowed to have undue influence when the urgency of circumstances similar to those in the above case shall require surgical interference. At the same time it must be strictly borne in mind, that all operations performed on infants ought to be done with the utmost rapidity and with little loss of blood.

With regard to the recurrence of the disease after amputation, the result of this case proves nothing; and in this point of view no inference can be drawn from it, either for or against the operation. I may, however, subjoin the following case in favour of amputation:—

William Forsyth, æt. 50, consulted me early in 1827, on account of a soft diffused swelling on the upper part of the tibia, with a bloody-looking fungus shooting

* Cyclopædia of Practical Medicine, article "Fungus Hæmatodes."

up from its centre. The fungus bled profusely from time to time. A few months before he applied to me, the tumour had been extirpated, but cicatrization had not been completed when the fungus reappeared. The patient would not at this time submit to amputation, and begged that another attempt might be made to extirpate the tumour. I accordingly cut it out, carrying the incisions far beyond the apparent boundaries of the diseased structure. The wound healed kindly enough, but very soon a soft elastic tumour bulged out under the cicatrix, from the outer edge of the tibia, which increased rapidly, and as soon as ulceration took place, the same encephaloid-like fungus shot up. On the 6th November, 1827, I amputated the limb above the knee, and since then there has been no recurrence of the disease. In examining the limb I could detect no morbid appearance, beyond the pulpy mass of the tumour, except that a portion of the periosteum, whence the disease appeared to spring, was dry and easily detached from the bone.

The infant's leg I have presented to my friend Mr. Liston, and it may be seen in his museum.

Elgin, Nov. 16th, 1833.

ON THE

IMPOSSIBILITY OF NATURAL LABOUR,

AND THE NECESSITY OF EMPLOYING THE FORCEPS,

IN THE POSTERIOR POSITIONS OF THE OCCIPUT.

From a Memoir read at the Royal Academy of Medicine on the 2nd of November, 1833, by M. Capuron, Professor of Accouchmens &c., we obtain some useful information on the above subject.

The greater part of accoucheurs, says M. Capuron, regard as natural those positions in which the occiput of the child regards some point of the posterior demicircle of the pelvis, and believe that in those cases the woman may be delivered without the aid of art; they have merely been considered as more rare and less favourable than the other positions of the head. M. Capuron was for a long time of this opinion, but the consideration of various facts presented to him in his long practice, and a reflection on the mechanism of labour in these positions, have induced him to embrace a contrary doctrine, and to conclude, first, that in general in all the occipito-posterior positions, delivery is very difficult, and even impossible, without the assistance of art. Secondly, that nature can only effect her object when the pelvis is larger, or the child's head is smaller, than it usually is in the normal state. M. Capuron quotes numerous cases in support of his opinion, from which we select the following:—

In 1817 he was called upon to attend a young, robust, well-formed woman, who had been delivered the year before of a large child, with great facility. When M. Capuron arrived, the labour was far advanced; the head had descended into the cavity of the pelvis, where it seemed locked; the finger penetrated a little higher on the left side than on the right, but even there it was impossible, on account of the great tumefaction of parts, to determine if the occiput were turned forwards or backwards. General bleeding, warm-baths, and fumigations to the vulva, had been already employed, and the uterine contractions had relaxed. The forceps were readily applied on the left side of the pelvis, but with some difficulty the right branch was adjusted, and the head seized and extracted, causing a laceration of the perineum a few lines in extent. The child's face was the part which first appeared at the vulva, and from the position of the trunk it was judged that the head originally presented in the left occipito-posterior position; the face and head were excessively swollen, and covered with ecchymosis, but these symptoms soon disappeared.

In this case the pelvis was large and well formed, but the child's head was rather small; the utility and even necessity of applying the forceps could not be denied. M. Capuron relates many other cases of a similar kind, in which the application of the forceps was rendered indispensable from the position of the head. The posterior position is not, however, of frequent occurrence. In from 3000 to 3500 cases, he has not met with these positions more than about 30 times, which gives a proportion of 1 in 100, a relation similar to that given by other authors.

The theory of the art leads to the same conclusion as experience; in occipito-posterior positions, even if the head have passed the inlet of the pelvis and is lodged in the cavity (which is conceding a great deal), M. Capuron affirms that natural delivery is impossible, unless the head be smaller or the pelvis larger than usual.

For in order that the occiput should pass the outlet, it is necessary that the occipito-mental diameter should be placed in the direction of the axis of the outlet, or in other words, in the direction of a line passing from the sacro-vertebral angle to the centre of this outlet; hence it would be necessary that the occiput should be pushed forwards and the chin upwards against the angle of the sacrum, but the neck of the child, placed between the chin and sacrum, renders such a motion impossible.

This fact may be easily demonstrated on a pelvis and artificial fœtus; but it becomes still more clear when we think on the direction of the uterine contractions. When the head is in the cavity of the pelvis, the uterus acts on it in a line falling from the umbilicus to the coccyx; the efforts of the uterus, therefore, all fall on the occiput, but as the perineum presents resistance on the one side, while the chin cannot give way on the other, the occiput is pushed in a direction where it cannot have an exit. These considerations are applicable to cases in which the occiput looks directly backwards, but if we apply them to oblique positions of the occiput, it is manifest that natural labour is still less to be expected.

EARLY DETECTION OF

ANEURYSM IN THE CHEST.

To the Editor of THE LANCET.

SIR,—It has been a desideratum to ascertain as early as possible the existence of aneurysm in the chest, in order to the adoption of treatment and precautions to retard the increase of that tremendous malady.

When the aneurysm has attained such a size as to present itself externally, little can be done to arrest its progress, without depressing the patient, to a great degree, in the endeavours to keep down the pulse; for, unfortunately, the aneurysm is distended, not by the injecting force merely of the heart, but by that force increased in proportion as the aneurysm increases beyond the caliber of the aorta, on the principle of the hydraulic press, so that as the aneurysm enlarges, its tendency to increase, or the distending force, augments.

An aneurysm in an exposed part is seen and felt to pulsate, and it occurred to me, that upon this known property might depend a state of pulse which might assist us in the diagnosis of incipient aneurysm in the chest, which Laennec and others have considered so difficult; and, in fact, from repeated observations, I feel satisfied that the resilience of the aneurysm, after each beat of the heart, produces a resilience in the pulse. Thus, taking, as examples, three patients who have been for some time in the hospital, one has aneurysm making its way through the anterior parietes of the chest, in which the resilient pulse is very distinctly marked, as it will be found in all similar cases. Two others, in which I consider that aneurysm exists, though not yet showing itself externally, have the resilient pulse in different degrees of clearness. When the resilience is slight, it requires some practice to feel it, and the fingers must be kept with a light elastic pressure on the artery at the wrist. There is occasionally a double pulse, from valvular disease (described in THE LANCET, No. 455, page 199), but different from this aneurysmal resilience.

I may observe, that one of the last-mentioned patients has fremissement cataire, accompanied by a bruit so loud, that it may be heard without mediate auscultation, if the ear be held within about ten inches of the sternum. I am, Sir, yours, &c.

A. BILLING, M.D.

London Hospital, Nov. 30, 1833.

CURE FOR BALDNESS.

To the Editor of THE LANCET.

SIR,—If you will insert the following description of a singular case of *porrigo decalvans* in your valuable publication, you will much oblige me.

In the year 1808, I was affected with a partial baldness of the scalp, in places not exceeding the size of a shilling, unaccompanied with the slightest visible irritation of the external skin. The patches, which were as smooth as the palm of the hand, soon displayed a fresh crop of hair after using a stimulating ointment, composed of equal parts of ointment of tobacco and citron ointment. The disease, however, recurred at intervals during twenty years; but invariably yielded to the application of the ointment in the course of a few weeks. Weekly recourse to shaving has at length completely removed this singular affection. The efficacy of this invaluable ointment in most cutaneous affections (diluted according to the nature of the case) cannot be too extensively known. I have the honour to be, Sir, your obedient servant,

FELIX THORNBURY.

Brighton, Nov. 27, 1833.

PROCESS FOR PROCURING THE PROTOXIDE OF IRON.

To the Editor of THE LANCET.

SIR,—The various processes for procuring the protoxide of iron having proved unsuccessful, the following may be found a convenient and sure substitute.

Berzelius remarks in his *Lehrbuch der Chemie*, that "Protoxide of iron is one of those bodies which it is most difficult to obtain in a pure and isolated form." He mentions two processes for obtaining it. The one is now known to give a mixed oxide; the other is practically impossible.

Another method, often mentioned in chemical works, that of passing hydrogen gas over peroxide of iron at a low temperature, is known to afford *metallic iron*. The process now proposed is the following, being analogous to that recommended by Wöhler and Liebig for the preparation of the protoxide of manganese.

The protochloride of iron is mixed with four times its weight of pure dry carbonate of soda. The whole is put into a covered platinum crucible, and exposed for about five minutes to a full red heat. (A common Hessian crucible would do almost equally well.) When cold, the soluble matter, consisting of sea-salt and carbonate of soda, is dissolved by water, and the whole, thrown upon a filter, is treated as in mineral analysis.

The protoxide of iron, as thus procured, is a finely-divided, heavy, insoluble powder, of a perfectly black colour. It is slowly dissolved by dilute sulphuric acid, and, rather more rapidly, by muriatic acid. The solutions are of a pale green. Cold nitric acid does not act readily on it, but heat peroxidizes and dissolves it.

It is soluble in a hot solution of cyanuret of potassium, forming ferrocyanate of potash. When heated to redness in the open air, it becomes red, and is converted into the peroxide.

The precautions requisite to be observed, are those of applying the heat as rapidly as possible, withdrawing the crucible as soon as the mass is fused, and having the crucible well covered, and the protochloride crystallised and quite pure.

In intruding these remarks upon your pages among the writings of able and distinguished correspondents, we hope that they may lead to the discovery of better processes for preparing this and similar compounds, and that the observations of the young and inexperienced student may perhaps serve as a hint to some more accurate and masterly investigator. Yours,

CHARLES MAITLAND.
FRED. R. T. G. RODGERS.

University of London, Dec. 5, 1833.

PROPOSAL TO ESTABLISH AN ENGLISH JOURNAL OF CHEMISTRY.

By JOHN S. HILEY, *Esq., Elland.*

AS THE LANCET is everywhere allowed to be the most essential and popular organ of the medical profession, I have selected it for the introduction of a subject to the notice of scientific men, which, of late years, philosophers have treated with great indifference:—I mean the establishment of a "Journal of Chemistry." With the exception of *The Chemist*, it is now more than a dozen years since any chemical journal of merit has issued from the press, although the medical profession alone should afford a sufficient number of subscribers for the support of such a periodical, chemistry being a primary and indispensable branch of a medical man's education. Almost every other department of science can boast of its particular journal. Law, physic, divinity, phrenology, geology, natural history, and mechanics, each supports a magazine wherein the different undecided topics relating to its department are argued, and all discoveries therein are made public. Chemistry forms an exception. Many of the medical publications devote a portion of their pages to this science, but that portion is trifling, and, moreover, the papers are distributed amongst such a variety of periodicals, that it is next to impossible for one man either to read, or, what is worse, to afford to purchase them. True, also, that in addition to these, we have *Jameson's Journal* and the *Philosophical Magazine*, but considerably too large a share of their pages is devoted to abstract subjects, bearing but slightly upon the science in question. Taking up for instance, the 14th Number of the *Philosophical Magazine* (August, 1833), I find that out of fifteen papers, four only can strictly be called chemical.

Thus unsupported, how can chemistry keep pace with other branches of learning? Nay, its very decline is threatened, and its descent from the pinnacle which it attained under Davy,—in whose day the *Journal of the Royal Institution*, *Nicholson's Journal*, and the *Annals of Philosophy*, were in the full blaze of celebrity,—seems highly probable.

It has been said that a magazine devoted exclusively to chemical pursuits has never flourished. This is certainly erroneous. What journal ever met with more supporters, for it was admirably conducted, than the *Annals of Philosophy*, under the editorship of the celebrated

Thomson; or what magazine, in any age, ever stood more firmly and produced so many valuable papers as that conducted for so many years by the laborious and learned Nicholson? Look to the periodicals of France, and there note how much relating to chemical transactions issues monthly, nay weekly, from the press, in journals the pages of which are occupied by the studied productions of the most distinguished chemists of that aspiring nation. Surely, if the chemical philosophers of France are able to support many respective publications, Great Britain, with her numerous men of genius, can supply contributions abundantly valuable to support one solitary journal.

The members of the great *British Association for the Advancement of Science* might conduct a work of this nature, which would infallibly succeed. Under its auspices contributions would pour in from every quarter. Funds sufficient to support such a work would hardly be wanting, or, if they were, there are many rich scientific individuals in this country who, I should think, would gladly afford pecuniary assistance to the publication. I, for one, if I could not contribute to its interest otherwise, should be proud to give my mite towards its support. If I am rightly informed, F. W. Johnstone, professor of chemistry in the newly-established Durham University, proposed, at the late meeting of the *British Association for the Advancement of Science*, at Cambridge, to publish a chemical journal, the editorial duties of which he kindly offered to take upon himself. The offer was, however, declined on some grounds which were so inconsiderable, that one feels surprised that a society so opulent and extensive should have allowed them to prevail. Should this paper meet the eye of Professor Johnstone, he is besought to reconsider the purport of it, and promote the interests of chemistry, by acting on his suggestion independently of the Association, if he cannot have its immediate countenance.

With regard to the intervals of publication, it seems to me that a monthly periodical would be preferable. The distance between the appearance of quarterly numbers is too long, and quarterly journals are always too large and expensive for a wide sale. The enthusiasm of chemists would be kept in an advantageous state of excitement by a monthly work, for even the strongest and most active minds require an occasional stimulus.

There are some who may think, that if a chemical journal could obtain support, the chemists would have evinced proof of it by more frequent contributions to existing magazines. An answer to this is readily supplied. Chemists, like the students of every other department of science, are not inclined to labour for periodicals which lean to the propagation of some other branch of literature. Give them an interest in a work exclusively their own, and they will feel a double inducement to exertion. What geologist would feel inclined to contribute to a "Journal of Optics?" What phrenologist to a "Mechanic's Magazine?" Or what mathematician to a "Musical Review?" The width of subject is not so great, perhaps, as this, at present, but the contrast serves to illustrate my position, and, in a certain degree, is correct. It is, in fact, impossible for *justice* to be done to chemical science in any but a chemical publication; and chemists would act wisely in furthering the object I now advocate. By such a work only can the labours of a Dalton, a Faraday, a Henry, and a Thomson, be made to stand at an elevation parallel with those of their foreign contemporaries; while the junior students, following in their track, would, by the record of numberless minute discoveries, furnish an additional lever to move the science in England at a rate at least equal to that which it acquired under the exertions of Lavoisier, Priestley, Berthollet, or Davy. How many readers of THE LANCET will give such a periodical their support? If the chemists of England cannot institute an original journal, a magazine consisting of translations from all the foreign periodicals, even to the extent of half its pages, would be most desirable. Here I leave the subject to the consideration of the scientific world, and especially to the attention of Professor Johnstone.

Elland, near Halifax, Nov. 1833.

EXISTENCE OF IODINE IN THE CHELTENHAM MINERAL WATERS.

WE extract the following passage on the above subject, from an address delivered by Dr. M'CABE, of Cheltenham, before the *Literary and Philosophical Society*, lately established in that town, and forwarded to us by that gentleman. As the remaining portion of the lecture was devoted to matters of detail connected with the formation of the Society, it probably would not prove interesting to the readers of THE LANCET generally:—

"Among the various subjects to which the attention of the Society will naturally be directed, and to which its attention has

been already called by my friend Dr. Boisragon, there is none of greater importance to Cheltenham than the natural history of its mineral springs. It is not my intention to occupy the time of the Society with any disquisition on the medicinal virtues of the Cheltenham waters; but I think it of some importance to allude thus publicly to a new and active medicinal agent which has lately been discovered in them by chemical analysis. The substance to which I allude is Iodine. To show the importance of this discovery, it may be necessary to mention to the non-professional part of the Society, that iodine is a mineral substance which has latterly been much celebrated in the treatment of scrofulous and other glandular diseases; and to my medical brethren of the Society, it is known that these constitute a numerous class of diseases in this country, for the cure of which patients have hitherto been usually sent to the sea-side. If, therefore, this class of diseases can be successfully treated here, it will contribute greatly to extend the utility and increase the celebrity of the Cheltenham waters. In a geological point of view, the existence of iodine in the mineral strata surrounding Cheltenham is also of importance, as it affords an additional proof to the many already existing of the marine origin of the Cheltenham springs. Iodine is principally obtained from the several varieties of *fuci*, or sea-weed, and by finding it to exist in the vale of Cheltenham, the mind of the geologist is brought back to that remote period when the site of this now populous and fashionable town was, probably, covered by the waters of the ocean, and then carried forward to that subsequent period, when the gradually-retreating sea, pushed back as it were by the formation of an alluvial soil, left behind it from time to time, the organised remains of its own inhabitants in the several successive layers or strata which constituted the alluvial embankments. These organic remains of the inhabitants and products of the ocean, both of the animal and vegetable kingdoms, constitute the materials which, by chemical solution and chemical affinity, produce all the varieties of the Cheltenham waters."

PRODUCTION OF HONEY.

In a paper which was lately read before the *Medico-Botanical Society*, and which has been forwarded to us for publication by its author Dr. HANCOCK, we observe the following passages, which are not without their interest to the general and philosophical reader:—

"I have seen honey taken in the forests of South America from several different species of bees; they were always destitute of a sting, although entomologists consider them as one of the generic character of apis. It is also singular that their wax is always *black*, or dark-brown, although the pollen of the flowers which is said to give colour, is equally yellow, as in this country. Bees obtain honey from most kinds of flowers, but appear in general to prefer the labrati or lip flower, as those of sage, marjoram, mint, thyme, lavender, &c.

"Mr. Nutt, in the course of his observation, has noticed the curious fact, that the nectar, or honey, obtained from different plants, is carefully deposited by the bees in separate cells, or, at least, that the nectar from *different genera* of plants is kept distinct! It appears, indeed, that the produce of the flowers is classed by them, and arranged with a precision not inferior to that of the most accurate botanist. What but a hand divine could guide these little insects thus to mock the boasted power of human reason! This consideration, too, coupled with our own interests, should operate as a powerful argument in favour of Mr. Nutt's new conservative system of management, and against the reckless destruction of the bees. Mr. Nutt has already been patronised by the Royal Family and several of the nobility; and no doubt his plan will be adopted by all persons of intelligence who would engage in this pursuit, whether for profit or the most rational amusement. It would be vain to attempt, in this short notice, to elucidate this method, more especially since the mystery is explained at the *Adelaide Gallery*, and at the *Museum of National Manufactures* in Leicester-square, where, with the utmost liberality, the whole process is fully exemplified. As an example of the superiority of Mr. Nutt's method, it may be added, that from a single hive he obtained, in the course of one season, 290 lbs. of the finest honey, and that without destroying a single bee."

SIR A. CARLISLE *versus* JUNIOR MEDICAL MEN.

(From a Correspondent.)

A short time since Sir Anthony Carlisle delivered a lecture at the "Marylebone Literary and Scientific Institution" (an institution in a deservedly flourishing condition), which he was pleased to dignify with the heading, "On the present state of the medical profession," a subject of obvious importance to the public generally, to whom he had thus a good opportunity of exposing the gross anomalies, the absurd distinctions, and the defective state, of medical law, practice, and education; and he might have pointed out with effect the natural and adequate remedies for these deficiencies. But this did not the Knight, for, with a plentiful interlarding of words "hard to be understood," such as "psychological phantasms," his auditors were treated with an elaborate attack on the junior members of the profession. He characterised them with being ever on the alert to court popularity by the performance of "desperate and dangerous operations" (a phrase with which the learned knight seemed particularly enamoured, as it was repeated half a dozen times during the lecture), and said that the operations of young practitioners were often performed under circumstances which made no trifling approach to manslaughter! He was pleased to recommend that different gradations of payment should be forthwith established, instead of the present method of remunerating medical men, and that the lowest fees should be given to the younger professional men! He also urged, that no young man, however talented or rich in diplomas, should be allowed to prescribe, except under the superintendence of some more advanced practitioner; and, finally, with excessive liberality, he made the important statement, that a young man might probably bleed better than he (Sir A.) could. The disciples of Esculapius can never be sufficiently thankful. Addressed to a professional assembly, these assertions and his "arguments" would have met with their deserts; but it is easy to conceive how different must have been the impression made upon an auditory composed of the respectable class of tradesmen and their families, the lecturer being a man of title and long standing in the profession. Nothing could be more disgusting than an ungenerous attempt to assume for age what does not invariably belong to it, and, by exciting a prejudice against the young physician or surgeon, to bolster up the necessarily diminishing practice of the aged one.

That the veteran knight can hector as loudly in an opposite strain, is curiously shown by recent letters in the public prints, inserted under the suspicious heading of "Advertisement." Here Sir Anthony strenuously advocates the superior claims of a young, a very young, man, to the important and responsible office of assistant surgeon in a large hospital. What can have brought this sudden change over the "spirit of his dream?" Of course an old friendship with his brother knight, the patron of this young man, had nothing to do with it.

IRISH GRAND-JURY ACT.

To the Editor of The Lancet.

Sir,—As the undeviating advocate for medical reform, I beg to call your attention, and, through you, the attention of the various members of the English and Scotch colleges, to an article in the Irish Grand-Jury Act, lately passed by our *reformed* Parliament,—an Act (as far as regards the medical legislation) which might have been tolerated three centuries ago, but which is totally unsuited to the spirit of the present times,—an Act narrow and exclusive in itself, and eminently suited to meet the warmest reception from the corporation monopolists of the Irish College of Surgeons: in a word, an Act, every item of which is characterised by a spirit of exclusiveness, jobbing, and illiberality. The clause to which I allude is the following:—"And be it enacted, that it shall not be lawful for any grand jury to present any sum to be paid to the surgeon of any infirmary, unless, together with an application therefrom, a certificate signed by the governors of such infirmary or hospital, or by five of them at the least, shall be laid before the special sessions to be holden under this Act, for the purpose of considering applications for presentments, which certificate shall state that the surgeon for whom such additional salary is requested to be presented, hath duly and faithfully executed his duty as surgeon of such infirmary or hospital during the preceding year. Nor, *where such surgeon shall have been appointed subsequently to the passing of this Act*, unless a true copy (certified under the hand of the treasurer of such infirmary or hospital) *of the letters testimonial from the College of Surgeons in Ireland*, by law required to be obtained by every such surgeon, shall be laid before such special sessions."

Mark those words which are in italics. What a wonderful concession on the part of our legislatorial *reformers!* So they will not forthwith oust the respectable and talented men who have for so long a time and with so much credit to themselves held their highly important situations, because, forsooth, they have not these certain certificates from the Irish College of Surgeons, but (observe the glaring fact), although this Act provides for the *not turning off* of those who at present possess the situations alluded to, it precludes *all* those who have studied, or may study, in any but the Irish College, from any chance in the future elections to such offices.

I appeal to you and to every liberal-minded man, if this be not a most unjust act of legislation. Observe, it does not even confine itself to those gentlemen who have not as yet completed their studies, but wantonly bars out from the most important and valuable situations, men who have expended their time and money in the English, Scotch, and Continental schools.

The speedy repeal of such an odious clause is (I hold it) not a mere Irish medical question. It involves the interests of an immense portion of the profession, and throws a heavy obstacle in the way of the great question of general medical reform. I would therefore suggest, that petitions be got up, stating in strong and firm language their sense of this clause, and praying that it may be so amended, that the situations may be open to all persons qualified by a diploma from any recognised college. I have the honour to remain, Sir, your most obedient servant,

A MEMBER (RESIDING IN IRELAND) OF THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

Nov. 1833.

MIDDLESEX HOSPITAL.

CONNEXION BETWEEN DISEASE OF THE UTERUS AND INFLAMMATION OF THE VEINS OF THE THIGH.

To the Editor of THE LANCET.

SIR,—Having lately observed in your valuable journal (page 171) a case of phlegmasia dolens, related as occurring in the *Middlesex Hospital*, consequent on deranged uterine secretion, I am desirous of presenting your readers with two others, which have struck me as peculiarly interesting, and affording unquestionable evidence of the connexion which exists between disease or derangement of the uterus and its secretion, and inflammation of the veins of the thigh.

Your correspondent, in the case above alluded to, has failed to notice one very prominent and singular feature of this disease, and which, if found to be general, will, I think, render the present practice of antiphlogistic treatment doubtful and questionable. It is this, that on the occurrence of inflammation of the veins of the leg or thigh, pain is first experienced in the neighbourhood of the affected vessel, in a few hours after which a severe rigor will set in, clearly showing that a constitutional disturbance is not a cause but a result of the inflammation. Now the case is widely different in acute diseases of other tissues, where the constitution first becomes affected; rigors and consecutive pyrexia show themselves; and in the attempt which the heart and arteries are making to restore the balance of their circulating fluid, an organ predisposed to disease is attacked by inflammation. This I deem an important and highly practical fact, and it must bring us to the conclusion, that phlebitis is first purely a local affection, and not requiring for its cure or alleviation the remedies usually resorted to in inflammatory diseases generally.

I would refer your readers to some interesting cases published by Dr. Lee, in which there occurred inflammation of the veins of the uterus after parturition, causing puerperal fever. They were treated upon the depletory system, and all died, when the same results were found after death which, no doubt, would have been noticed in the subjoined cases had they not survived the acute attack.

On examining a vein which is partially or completely plugged up by the processes of acute inflammation, we notice that the medium of connexion between the opposite sides of the vessel is a pale fibrinous layer, adhering to the inner tunic, whilst the more central depositions are yellow, rather friable, and, usually, less organised than those which are external to them.

With regard to the treatment of phlebitis, whether connected or not with uterine disturbance, I should say that venesection must never be resorted to, though we are not to watch the progress of this destructive malady, and be content to apply simple remedies. We are in possession of one which will at all times be found to grapple with the disease, and which, by exerting its peculiar influence on the system, will arrest the inflammation, and prevent those depositions in the veins which will ultimately render them imper-

vious, and give rise to a long train of distressing symptoms. This remedy is *calomel*, given in frequent doses, so that its effect may be rapid and sudden; and with it alone, I firmly believe, far more may be accomplished than accrues from general or local bloodletting, though the latter is of more value than the former. It is a notorious fact, that medical men bring upon themselves more discredit in the treatment of female diseases than perhaps in any other class, by the constant recourse they have to bloodletting When they find those symptoms present which are common to impaired menstruation, such as the headach, palpitation, and pain in the precordial region, they look upon them, indiscriminately, as evidences of inflammation,—that is, if we may judge from their injudicious treatment in such cases. The result of the practice is, very often, indirectly fatal. The languid pulse, blanched skin, and deficient uterine secretion, necessarily induce congestion of some internal organ, and of none more readily than the lungs. Hence follows the hard, dry, and sonorous cough, the marked difference in the respiratory murmur of each upper lobe, and the colliquative night sweats. The patient, by violent coughing, brings on hæmoptysis, and she is then shortly ranked among the numerous victims of consumption. How soon all these fatal symptoms may show themselves by large drainings from the circulatory system, I leave your readers to judge.

The two cases which have elicited the above remarks occurred in the *Middlesex Hospital*. The first was under Dr. Wilson.

CASE I.

The woman was admitted on the 18th of June, 1833, ætat. 40, a widow, with dysuria and great pain in the lumbar region. On examination of the uterus *per vaginam*, by Dr. Ley, a large malignant ulcer with elevated edges, was noticed, and it had destroyed the os uteri, with the larger portion of the cervix.

On the 27th she was attacked, while walking in the ward, with acute pain in the left groin, so that she fainted. On recovery she had rigors and subsequent heats; the pain extended down the inside of the thigh and knee, into the calf. She was much relieved by the application of eight leeches to the left groin, and fomentations.

On the 29th the whole extremity was much enlarged, with great tenderness, and an elevated hardness along the track of the femoral and saphena veins. The surface of the thigh was slightly erythematous, and marked by numerous full superficial veins. Since the attack on the 27th she has lost all the pain previously experienced in the uterine region, and passes her urine without difficulty or pain. Was again relieved by leeches to the thigh.

On the 3rd of July the limb had become pale and shining, and pitted on pressure; the foot was numb, but she could extend the leg better. She now gradually sunk under the slow progress of the uterine disease, and died on the 13th of October, having had obstinate diarrhœa ever since the attack of phlebitis.

Inspection post mortem.

The femoral vein of the left thigh was found impervious as far as the knee. A mass of lemon-coloured fibrine adhered pretty firmly to its entire surface. Just above the saphenous opening it became pervious. The saphena here was also pervious, but below its junction with the femoral it was, in part, similarly blocked up. So also, probably, was the saphena minor of the leg, feeling, as it did, hard and cord-like. The iliacs, external and internal, were much thickened in their coats. The vena cava was healthy as far as half an inch from the renal veins, where it was occupied by a clot an inch in length, pale, and adhering firmly to the inner tunic of the vein. This fibrine was in itself pervious, and no doubt a small quantity of blood passed through it to the right side of the heart, the walls of which viscus were very thin, pale, and soft. The uterus was laid bare in its body and cervix, by a large ulcerated surface, with hard and vascular edges. There was adhering to the left side of its body, a hard, round tumour, the size of a small orange, composed of a dense mass like fibro-cartilage, and intersected with numerous white bands. This tumour was situated directly over the external iliac vein. The liver was studded with depositions of a white, hard, and circumscribed structure, some being as large as walnuts; one, adjoining the hepatic artery, had got into the vessel, so as to obliterate its permeability. They are ably described by Dr. Carswell, of the London University, who considers them connected with a cancerous diathesis of the system.

CASE II.

M. A., ætat. 18, a pale, scrofulous girl, was admitted into the Middlesex Hospital, under Dr. Watson, Sept. 10th, with the left leg and thigh swelled, and very painful from the ankle to the groin. Pain there had existed for a fortnight; the swelling since the 8th only. Six weeks ago she began to have headach, for the first time, nausea and occasional vomiting;

at the same time the catamenia, which had previously been regular (but on the last occasion scanty), ceased to appear. Five weeks ago she had scarlet fever.

Hirudines xii, inguini sinistro.

14. The pain was relieved by the leeches. It is now greatest at the saphenous opening of the femoral vein. Swelling the same. Rep. *Hirud.*

15. Pain in the same direction in the right thigh. Pulse 120 and weak. Rep. *Hirudines* xii, inguini dexter.

17. Tension and pain over the uterine region, especially the broad ligaments, and in both groins. The right leg is now swollen and œdematous; the left less so; some pain at the epigastrium. Tongue red; bowels purged.

22. She has had several applications of leeches to the thighs, but they do not benefit her, and she is become extremely weak and dejected, the doctor therefore determined on giving her steel.

Pil. ferri opiata, gr. v, ter. 1 pint porter and meat diet.

Oct. 16. Since taking the above she has wonderfully improved. The legs are now natural in size, and the general health is amended. There is hardness along the track of the veins of the thigh, and the feet are so tender that she cannot put them to the ground. She is, however, now rapidly approaching to a convalescent state. Ordered to continue the steel, and meat diet.

I close this communication with the hope that some of your able correspondents will furnish us with additional information on this interesting disease, and beg to subscribe myself your obedient servant,

AN OBSERVER.

Nov. 1833.

HOPITAL DES ENFANS MALADES, PARIS.

PERICARDITIS.

DIDELET, a boy, 14 years of age, was received into this hospital on the 30th of August, 1833. He had been vaccinated, and had had the measles, and generally enjoyed good health before his attack. Five days ago the child was seized with restlessness, and very severe headach, which continued for two days, when he vomited several times a greenish acid fluid. He was now attacked by violent pain in the chest on the right side, accompanied with frequent cough, without expectoration; the pain was aggravated by lying on the affected side. He had frequently before this been attacked by rheumatismal pains occasioned by the damp, unwholesome situation in which he was accustomed to work. The pain had now shifted to the left side of the chest; he was tormented by excessive thirst, and his bowels had been confined for several days.

On the 31st the child presented the following symptoms; the respiration was frequent, extremely anxious and oppressed, nasal and catching every now and then, so as to interrupt the speech; it was also accompanied with sifflement; the pulse small and 120; it beat 130 before a bleeding which had been practised by the dresser to eight ounces. There was great tenderness over the scrobiculus cordis and over the precordial region; indeed pressure on any part of the parietes of the chest at the left side seemed to give pain. When the stethoscope was applied, we heard œgophony distinctly on the right side, the only one upon which the patient could lie; he also complained of pain in the epigastric region, which is a little swollen. This came on since last night; the skin over the precordial region of the chest, or at the right side, does not pit upon pressure, nor is there any apparent alteration of the capacity of the chest; the tongue was white and foul, and the thirst great.

Bleeding from arm to eight ounces; *Clyster* with *Mercury*; ten *Leeches* to the left side of the abdomen. Diet.

September 1. The blood drawn has a strong inflammatory crust; the respiration is very hurried, 70; still much oppressed; the child appears considerably weaker than yesterday; there are four or five very quick inspirations, followed by a long pause or catch; the patient cannot lie in the recumbent posture, but is supported up in bed by a pillow; there is considerable dulness of sound posteriorly, and at the right side of the chest; there is less œgophony. The child coughed a good deal during the night, and was very disturbed, complaining continually of pain in both sides of the chest; pressure still gives pain over the precordial region, which gives a dull sound when percussed; the pulsations of the heart are dull and obscure; the skin is quite cool to-day; the face pale; pulse small, 120; tongue foul.

Pulv. Doveri gr. viii; half a *Purgative Draught; Cataplasms with Vinegar* to the lower extremities; *Scarifications* to right side of the chest.

2. The child is sinking fast to-day; he does not complain much; respiration 40, not catching as yesterday, nor so oppressed; the same short catching cough continually annoys the patient; pulse 102,

quite cool, without any transpiration; he still experiences pain in the side and in the precordial region; he passed one worm last night in an ill-conditioned stool.

Draught with Nitre xii gr.; half a *Purgative Draught*; *Pulv. Doveri* gr. xii; *Scarification* over precordial region, and *Cataplasma* over the scarified points.

The patient died quietly on the morning of the 3rd September.

Autopsy on the 4th.

Cavity of the Chest.—The right lung adheres extensively to the parietes of the chest; and the cavity of the pleura contains a considerable quantity of turbid serum. The structure of this lung is quite sound, but the pleura pulmonalis is covered with a false membrane of recent formation. The pericardium is much distended, and, when opened, was found to contain about six or eight ounces of a sero-purulent fluid, mixed with a great quantity of yellow flocci; the heart seemed enlarged and twisted on itself like the state of the organ sometimes seen in cases of tetanus; its external surface as well that of the pericardium, was very highly injected, of a pink colour, with several very red vascular points here and there; the serous membrane lining the heart was slightly thickened in several parts and granulated; the distention of the pericardium had pushed the left lung considerably to one side, and diminished its volume, but the organ was crepitant and healthy though gorged with dark blood; the lining membrane of the trachea and bronchi presented a healthy appearance, but there was some redness at the bifurcation of the tube.

The mucous membrane of the stomach was of a pale red, with various points of deeper injection scattered through its surface; the other viscera of the abdomen and cranium were perfectly sound.

RHEUMATISM. — INFLAMMATION OF THE HEART AND PERICARDIUM.—ADMINISTRATION OF TARTAR EMETIC. — INFLAMMATION OF THE STOMACH, AND SUDDEN DEATH.

Begat, a boy, 14 years of age, was admitted into the hospital on the 11th of October. The patient, who works in a moist dark chamber, and in an unwholesome situation, was suddenly seized during the night of the 9th of October with a severe fit of shivering, followed by acute pains in the neck and hand; he also felt pain in the throat, so far as to impede deglutition; the child passed an agitated night, and next day the pains shifted to the lower extremities, attacking violently the legs and thighs; he also felt some pain in the elbow-joint.

Oct. 12. At this morning's visit, we found the patient in the following condition:—The temperature of the body was elevated, particularly at the feet and knees; the ankle-joints were swollen, and excessively tender to the touch; on the inner side of each we noticed some red spots, like a slight erysipelatous blush, and the veins about this spot were swollen and painful; there was also some pain in the course of the saphena vein, as far up as the knee; the pain still persisted in the muscles of the neck and throat, and the suffering was so acute about the loins, that the patient was unable to move without crying aloud. His head was considerably affected yesterday, but this symptom has disappeared. The respiration was not accelerated, but inspiration causes an uneasy sensation in the pit of the stomach, which is a little swollen and tender to the touch; there was no vomiting or cough; the tongue moist and white; pulse 112.

Oxymel. Cataplasm to the belly; *warm-bath.*

13. The patient was relieved for a short time by the bath, but the general pains continue as severe as before; the state of the lower extremities is the same, and the inguinal regions are very tender; pressure over the epigastrium gives considerable pain, and the right arm has become very painful since last night; the patient did not sleep during the night; there was no general fever; no stool; thirst; tongue moist and white; no cough.

Oxymel. Emetic of fifteen grs. *ipecac.*, and one grain of *tartar emetic.*

14. The feet are less painful and swollen; there appears to be a tendency in the inflammation to shift its seat; the skin over the knees is excessively hot, and he complains much of the wrist and elbow-joints; the pain in the epigastrium continues; the emetic produced a good deal of vomiting, several stools, and the excretion of urine in abundance; the face is less coloured; the tongue moist, and a little red; pulse 114, not feverish; there is no moisture on the skin, but the patient says he sweated a good deal during the night; respiration still tranquil.

Potio-emetica (containing four grains of tartar emetic).

15. The pain in the arms, in the elbow, and wrist-joints, is excessive to-day; there are some red spots, with swelling of the integuments on the knuckles, and the articulations are excessively warm; the ankle-joints are much less swollen or red than they have been for the preceding days; pulse 120; the child has neither vomited nor evacuated by stool; he made a good deal of clear urine during the

night; the tongue is moist, and not so red as yesterday; no moisture on the skin.

Potio-emetica, with six grains of tartar emetic. Friction over limbs, with an *opiated embrocation*.

16. The pains have returned, but with less violence, in the left leg; the condition of the upper extremities is nearly the same as yesterday; the skin to-day is covered with a gentle moisture; the tongue is moist also, but a little red; there was no vomiting or diarrhœa, but the stomach was occasionally affected with nausea during the night; the patient made again a good deal of urine; no cough; the pulse had become very full, 120, and the respiration was now somewhat accelerated.

Potio-emetica. Frictions as before.

17. The state of the patient seemed considerably improved; he slept a little during the night; the wrists were less painful, and the pulse less feverish; some thirst; no vomiting or stool; the tenderness of the epigastric region always continues. *Contin. remedia.*

18. There is less pain in the arms; he can bend the left leg now without causing any uneasiness, but the right leg is still very stiff and painful; there is pain in the left groin, from which the epigastric veins run up on the abdomen, distended and painful; the whole abdomen is very tender to the touch; there is also tenderness of the skin, covering the parietes of the chest, and the child has a marked air of anxiety and suffering; the skin still remains cool; the pulse is regular, 100; he vomited yesterday after the draught, but had no stool; tongue is moist, and rather foul. Draught, with *tartar emetic* one grain.

19. The patient vomited four or five times during the night, and appears to be better to-day, but he still complains of pain in the abdomen and right leg; the tongue is moist, and covered with a white layer; the pulse frequent, 102; no perspiration; no stool; suspend the potion; purgative clyster to be repeated, if there be no stool.

20. The child seems much reduced and weakened, and has a peculiar anxious expression of the countennance; he has still pain in the sides; the legs are much better; the belly in the epigastric region is very sensitive; the tongue brown and foul; no cough; no vomiting; one stool after lavement; the skin is a little warm to-day, for the first time; the pulse 100; the inspirations 36; respiration causes pain over the scrobiculus cordis, and the skin over the anterior part of the chest is tender to the touch; there is no perceptible projection of the intercostal spaces at this part, nor does the pulsation or auscultation of the heart give anything remarkable. There was no change of any extraordinary kind noticed at the evening visit, and the patient was found dead by the nurse in the middle of the night.

Autopsy on the morning of the 21st.

Cavity of the Chest.—Both lungs perfectly healthy; the cavity of the pericardium is not distended, and when opened is found to contain a spoonful of a turbid serous fluid; the proper vessels of the heart and of the aorta near its origin are extremely injected and distended with blood, the external surface of the heart is of a purple-red colour, and it is covered anteriorly, for the space of some inches, with a thin layer of yellow matter which peels off on the knife, at other points the false membrane is laid down slightly in the reticulated manner peculiar to pericarditis, and in some others the serous lining is rough and granulated. The substance of the heart is rather soft.

Abdomen.—The lining membrane of the stomach is thrown into numerous folds and various points, particularly those corresponding with the folds, are crowded with a capillary dark-red injection, assuming an arboriform appearance; the submucous tissue of these parts is gorged with blood; the mucous membrane is somewhat softened over the reddest points, but in others it preserves its natural consistency. Several parts of the small intestine present the same marks of inflammation as the stomach; the large intestine is perfectly healthy.

*** The reflections to which a comparison of these two cases gives rise, are sufficiently interesting. In one, the nature of the disease was made known at an early stage by the presence of symptoms sufficiently well marked, and pericarditis was diagnosticated by M. Guersent at a very early stage. The symptoms on which he founded his diagnosis were chiefly the matity over the region of the heart, the dulness of sound in this region; the masking of the pulsations of the heart, and the tenderness with swelling of the epigastric region. The active anti-inflammatory measures adopted had no influence whatever on the progress of the disease. The second case was one of those in which unfortunately the attention of the physician is not attracted by any prominent symptom to the seat of the disease, though the latter may be, as in the present instance, one of a severe nature, and calcu-

lated to endanger life in a very short space of time. Here we see that the prominent characters of pericarditis, so well marked in the case of Begat, were absent; there was no matity over the region of the heart; the respiration and circulation were little if at all troubled, and the only symptom which might have directed notice to the affection of the heart, might very fairly have been attributed to the intercostal muscles. As to the sudden explosion of inflammation in the stomach, it is difficult to say whether, or how far, it may have been produced by the emetic doses; however, we may observe, that although there existed the strongest anatomical marks of severe inflammation of the stomach, the symptoms were very equivocal. The tenderness of the epigastrium certainly existed before any inflammation of the stomach had set in, and was even more remarkable in the case of a boy who was attacked by rheumatism exactly in the same way, and has now recovered, while the vomiting was naturally enough attributed to the action of the emetic. Perhaps the sudden appearance of inflammation in the heart and stomach at the same time, produced death quickly in the present instance, before any of the phenomena characteristic of such affection could be noticed.

RHEUMATISMAL AFFECTION SIMULATING PERICARDITIS.

Leroy, a boy, 12 years of age, apprentice to a silversmith, came into the hospital of the *Enfans Malades*, on the 11th of October last. This boy, who worked in a dark moist chamber in the same shop with Begat, has been much exposed to moisture and cold in running about on errands. On the 10th of October he was suddenly seized, without any premonitory shivering or febrile symptoms, with acute pain in the left leg, which prevented him from walking. On the following day he had a shivering fit, and the right leg, with the joints of both knees, became affected; there were also very violent pains in the loins; the head was free from any uneasiness, and the bowels have been regular since the time of his attack.

12. The boy complained to-day of universal pain; the abdomen is excessively tender, and the pain in the loins is violent, and aggravated by pressure; he is also tormented by occasional cramp; the ankle joints are much swollen and very painful to the touch: they present the same red patches which exist on the ankles of his comrade Begat (now in the hospital for a similar affection); the veins of the foot are also very much enlarged, and numerous red lines may be traced running up from the left ankle in the direction of the saphena vein, which is painful; the knees are not affected, but he complains much of pain in both inguinal regions; the tongue is white and moist; the skin moderately warm; the pulse full and frequent; intense thirst; there is no headach or cough; the respiration is deep and panting from the pain occasioned by the action of the intercostal muscles. ℞ *Oxymel; Purgative Clyster; Warm-bath; Cataplasm to the feet.*

13. The boy is in an excessive state of suffering to-day; he cries out constantly from pain in the sides and abdomen; the integuments covering the anterior part of the chest and abdomen are exquisitely sensitive; the swelling of the ankle-joints has diminished, and the red spots before noticed are less painful; there is no pain of the head or muscles of the neck; no feverish heat of the skin; the face is covered with moisture; the tongue is cleaner than it was yesterday, and moist; the pulse agitated, 96; thirst continues; the respiration is not hurried, but is laborious and nasal. *Emetic of Ipecac.* 15 gr.; *Tartar. Antim.*, 1 gr. *Frictions with an anodyne ointment.*

14. The patient complains of pain in the legs and abdomen; also of acute pain in the chest, over the precordial region; there is marked matity of this portion of the chest upon percussion, and some of those present at the visit imagine that the ribs project a little in this region; the knees are swollen to-day and painful; the tongue white and moist; the pulse irregular, 98; the patient passed one stool after the lavement, and the emetic produced three or four vomitings during the night, with as many liquid evacuations; no cough or headach. *Infusion of Tilleul*, 2 pots, with 4 grs. of *Tartar Emetic.*

15. The state of the patient is considerably improved; he vomited once last night, and had eight stools; the violence of the general pains is much mitigated; the abdomen is still slightly painful upon pressure, and he complains yet of the inguinal regions; the left knee is also affected in the same manner; the greatest point of suffering remains under the false ribs on the left side, and this part continues to give a dull sound upon percussion; the swelling, redness, and pain of the ankle-joints, have disappeared; the tongue is very white and moist; the respiration calm; pulse 90. *Oxymel; milk.*

16. To-day the pains have attacked the right arm, the knees, and the loins again; the abdominal muscles are excessively tense and tender; the pulse has become full and 100; respiration very short, 46; there is less thirst; the tongue is rather dry and white; the patient passed six stools during the night, but did not vomit; the elevation supposed to exist over the precordial region is no longer perceptible to those who noticed it before. *Potio Emetica*, with 4 grs. of *Tart. Emet.*

17. The pain in the several regions affected is considerably less to-day; but the thirst is intense; there has been a good deal of cutaneous transpiration; two stools; no vomiting or headach; no cough; the countenance of the patient is losing its expression of anxiety and suffering. *Contin. Remedia.*

18. The rheumatismal pains continue in the loins and inguinal regions; the rest of the body is less affected; the skin is moderately warm; the child vomited once during the night after taking his draught, and passed two stools; the tongue is very foul, covered with a thick yellow layer; no cough; pulse 100. *Six grains of tartar emetic in the draught. Continue the frictions.*

19. The patient feels better to-day; he suffers much in the affected parts; made a good deal of urine during the night, and vomited four times; the perspiration is abundant; pulse quiet, 86. *Cont. Remed.*

20. The skin continues moist and cool; patient vomited only once yesterday; the tongue is foul and brown; the pulse very small, 80; the respiration moderate, 28; the general pains have nearly disappeared; the stiffness of the lower extremities is also gone, and they are free from pain; the abdomen still remains slightly tender. *Draught with 4 grs. of Emetic; low diet; Tilleul.*

21. The tongue still remains foul; the abdomen is now quite free from tenderness; no thirst; the patient makes a good deal of urine during the night; he vomited once and had one evacuation; the skin is quite cool; pulse 80. *Tilleul; discontinue the Emetic.*

22. No pain; no vomiting; still makes a great deal of urine; tongue moist, but very brown; one stool; no fever. *Tilleul; two soups.*

25. The tongue has become clean again; the skin is perfectly cool; the child coughs a little; a *bruit de soufflet* of the heart, which we noticed for two or three days back, is very prominent to-day; in other respects the patient presents no abnormal symptom. *Emollient clyster; friction on the legs; soup.*

26. The child again complains of some pain in the abdomen; the skin is cool, but the pulse has risen, 112; he coughs a little, with a thick, viscid expectoration in small quantity. *Syrup of gum; ½ emollient clyster; cataplasm to the knees; soup.*

28. The febrile symptoms which existed on the 26th have now disappeared; the skin is slightly warm; the pulse small, 90; there is very slight tenderness over the epigastric region, and the patient hardly coughs at all; on the 30th he was in a state of convalescence.

In this case, which deserves to be contrasted with that of the boy Begat, who died of pericarditis, the symptoms were for some time very equivocal. He had worked in the same shop as the latter, and was of course exposed to the same exciting cause; the great pain over the region of the heart, the matity of that portion of the chest, and the apparent projection of the intercostal spaces, gave rise to some suspicions on the subject of the existence of pericarditis, yet the patient was entirely free from this disease, while his comrade was suddenly cut off by a rapid attack of inflammation, which was not revealed to the physician by any appreciable symptom.

THE LANCET.

London, Saturday, December 14, 1833.

A CORRESPONDENT, who expresses his opinions in a style which indicates no small portion of alarm, exclaims, "What "is to become of the existing medical and "surgical colleges in the new scheme of "medical government?"

The querist should have been more explicit. He should have stated whether he referred to the men who govern in the colleges, or to the buildings in which the rulers nocturnally assemble. "What is "to become of the College of Surgeons in "Lincoln's-inn-fields?" What an ominous interrogatory! Had the writer directed his attention to the museum of JOHN HUNTER, purchased with funds granted by Parliament, or had he asked

what was to be the destiny of the library purchased with money belonging to the commonalty, there would have been little difficulty in affording a satisfactory response to his inquiry. But inasmuch as the querist does not state whether, when employing the term "College," he refers to the walls of the miserable piece of architecture in Lincoln's-inn-fields, or to the self-perpetuating twenty-one, who preside over that establishment, we have no means of forming an opinion relative to the ultimate allotment or distribution of those materials, which, according to the estimation set on them by the best-informed members of the profession, are of equal value for all purposes connected with medical legislation.

But is it possible that certain institutions of parliamentary or kingly creation will be allowed by an intelligent and upright Legislature to interfere for a single hour with the accomplishment of medical regeneration? For what purpose, we ask, were those institutions created? For what objects were acts or charters of incorporation conferred on them? Assuredly, for the public good. If, then, they produce mischief instead of benefit—if they work disadvantageously instead of beneficially for the community—the Legislature is bound to suppress them, is bound to destroy the monsters of its own creation, or to put such restraints on them as shall arrest the injurious effects which result from their criminal practices.

In our arguments of last week on the subject of an improved system of medical policy, we insisted on the propriety of allowing the medical departments of our Universities to possess an independent government—that is, a system of control founded—not so much on arbitrary statutes and regulations addressed to the professors of those establishments, as on the scheme of education which it would be absolutely necessary to follow, in order to qualify students for the public examination which they would be compelled to undergo before the scrutators of the assembled Faculty. It is always dangerous to enter into a discussion of details previous to a due comprehension of principles. Hitherto, it appears to have been a principle, that there should be neither uniformity nor justice in medical law. Are then the existing Colleges to be allowed to continue the exercise of those powers which have been conferred on them, through the instrumentality of corrupt courtiers, or the folly of unthinking senators? The confirmation, by Act of Parliament, of such an assumption, would present an evil of far greater magnitude than any one of the thousands which already afflict the profession and the public. By instituting three colleges or faculties of medicine, and investing them with authority to examine candidates for medical diplomas, and to confer the full privilege of practising medicine in any part of these dominions,—by such a measure, all necessity for the existing Colleges would be completely obviated. In fact, a further exercise of the pretended authorities of those Colleges would, unequivocally, prove a means of preventing all those benefits which might otherwise be derived from a re-construction of our medical laws. Besides, where is the harmony, where the uniformity, where the concordance of proceeding, amongst the existing medical institutions? We have three Colleges of Surgeons,—one in London, one in Dublin, and one in Edinburgh,—to which may be added the Faculty of Physicians and Surgeons in Glasgow. Of these four bodies, no two are ever found acting in unison. The ruling authorities in them are all elected under different circumstances, they conduct their examinations differently, they prescribe different rules for the education of the candidates. Their diplomatists possess different rights. The member of the

Dublin College of Surgeons cannot supply the medicines which he may prescribe in England, and the member of the London College of Surgeons is shut out by law from every office of responsibility in Ireland. The member of the Edinburgh College of Surgeons, generally a well-qualified practitioner, is not only a proscribed man in all the medical charities of this metropolis, but although extremely well educated in pharmacy, renders himself liable to a penalty of 20*l.* on every occasion on which he may supply medicines in any part of England to a patient afflicted with a disease which the law deems *medical*. There is no man so thoroughly stupid, or incurably dishonest, as to allege that *this* state of things should continue; but there are many, not very disinterested persons, who exclaim, "*Modify* the law, *amend* the law, but allow all the medical and surgical colleges to remain as at present, with full power to confer degrees, diplomas, and licenses." Bah! Away with such disgusting foolery. *Amend* the law? ANNUL IT. Abrogate the vile charters which the heads of the Colleges have so scandalously abused. Repeal the Acts of Parliament which were obtained from ignorance through the instrumentality of fraud. "Oh," cry some, "how shocking thus to interfere with established private interests!" Why, this exclamation of itself conveys a most useful and instructive lesson, and suggests at once a question which the corruptionists by no means find it easy to answer. *How dared those men, who have been sworn to administer the law impartially between themselves and their professional brethren, to establish any private interests whatever, which could interfere with the honest discharge of their duty to the public?* Did the law contemplate the springing up of "private interests?" *Never.* But its defects have constituted a complete net-work to envelop the foulest system of monopoly and corruption that ever disgraced any profession or trade in this country.

Should, however, the rulers of our existing Colleges insist on the "sacredness of vested rights,"—should they set forth a claim to exemption from the proposed change of medical law, on the plea that alteration would subject them to private pecuniary loss,—should they, we say, be so sordid, so audacious, as to contend for the inviolability of their charters on such a pretext—and they can have no other to offer—then must the Legislature demand of them "how far they have fulfilled "the obligation of their oath, by dealing "honestly and fairly with the profes-"sional brethren, members of their body." If this question drive them not from the Council-chamber of the Government, they must be asked, "why have they excluded "from the governing body of the College "many of the most scientific members of "the commonalty," at the head of whom stood the late JOSHUA BROOKES. Here, colloquy may terminate. Such culprits could no longer remain in the presence of high-minded, honourable men, whose only object is to promote the cultivation of the science of medicine, in order that the public health may rest on a secure basis.

In recalling to mind the exclusion, the pertinacious, the malignant exclusion of Mr. BROOKES from the Council of the College of Surgeons, the offence of which that gentleman had been guilty should not be forgotten. He instructed his pupils in anatomy for exactly one-half the sum which was demanded by the lecturers who belonged to that Council which persecuted him to the hour of his dissolution,—a persecution almost unparalleled for its duration and malignity,—a persecution so horrible in its consequences, that it first broke up his school, then wrested from him his beautiful museum, and finally, after having reduced that venerable, useful, and eminent teacher to penury, to absolute want,

consigned him broken-hearted to the tomb. If, then, the SELF-PERPETUATING JUNTO should plead for the preservation of *their* "private interests," let them be required to explain in what manner *they* attempted to preserve the "private interests" of the respected JOSHUA BROOKES!

The "regulations" issued by the Colleges of Surgeons, not only differ from those of the medical departments of the Universities, but are at variance with one another. Not only are their demands upon students for the production of "testimonials" strikingly unequal, but the Colleges differ in their internal systems of government; and while those of London and Edinburgh are *without* medical schools, an educational establishment is attached to that of Dublin. In short, *confusion* reigns triumphant in every branch of the existing medical institutions of this kingdom. That the Charters of the Colleges of Surgeons must be *abrogated* is certain. No really beneficial change *can* be produced in the absence of such an emendation of the law as the repeal of those pernicious statutes would necessarily accomplish.

The Colleges of Physicians are of much more ancient date than the Colleges of Surgeons, though they yield, by many centuries, in point of seniority to the medical departments of several of our Universities. The College of Physicians of London was the creation of HENRY VIII., at the solicitation of LINNACRE, his favourite physician. At that period, and for upwards of two centuries afterwards, medical practice, strictly so called, was entirely conducted by physicians. It was considered that the law had been violated, if any man except an M.D. regularly attended and prescribed for the sick. A monopoly of such vast magnitude in the hands of a small body of men speedily engendered a spirit of overbearing tyranny on their part, and excited no small degree of dissatisfaction amongst the public, who thus became deprived of the opportunity of purchasing with freedom, and at a cheap rate, medicines, and medical skill.

About a hundred and thirty years since, a dispenser of medicines—the druggist of the present day—having visited a sick person prescribed for him, and supplied medicines, was successfully prosecuted for this presumed breach of the law; when instantly the spirited apothecary appealed, upon a writ of error, to the upper House of Parliament. The Lords reversed the verdict of the Court of King's Bench and this decision in favour of throwing open medical practice to persons unlicensed by the College of Physicians, led to the formation and rapid growth of that respectable and highly useful class of gentlemen styled "general practitioners." Thus, the College of Physicians having received an intimation, in 1701, from the highest branch of the Legislature that they were "not wanted"—that their authority when exercised was pernicious, how can the Fellows of that Institution complain if, in 1833, the Parliament should benevolently determine on depriving them of the opportunity of inflicting further mischief on the public and the profession? In *principle*, the institution of a College of Physicians was good, because it was designed to operate, through the re-examination of candidates, as a check, as a shield, justly interposed between the medical professors of the Universities and the public; for, surely, it will not be contended, that those who *profess* to instruct students in the science of medicine, should without check or control be allowed to confer on their pupils the right of practising physic in all its branches.

This, unfortunately, has been the process long in operation in the Colleges of Physicians and Surgeons of this metropolis, but the evil has been far more glaringly prominent in the institution of

Lincoln's-inn-fields than in that of Pall-Mall East. At one period, there was not a single lecturer on anatomy in London who was not sitting in the Council of twenty-one in the College of Surgeons; and no sooner did private lecturers spring up, commencing with the zealous JOSHUA BROOKES, than the College resorted to every species of mean device, in order to hold fast its sordid monopoly. But the fury excited by the successful opposition of private teachers did not break out into open acts of violent aggression on the rights of the members of the College until 1823, when the patriotic council resolved that no certificates of attendance on lectures on anatomy and surgery, *except their own*, should be recognised by them when presented by candidates for the diploma; and that no certificates of attendance upon the surgical practice of a hospital should be received by them, unless they were granted in the very hospitals of which they themselves were the surgeons! These are statements of FACT which will be fully verified before a Committee of the House of Commons—greatly, no doubt, to the satisfaction of those "respectable" individuals, whose whole aim it has been to promote the cultivation of "sound chirurgical knowledge."

A correct and comprehensive view of the question of efficient medical reform, includes not less certainly the abrogation of the charters of the Colleges of Surgeons, than it does the utter annihilation of those of the Colleges of Physicians. The existence of such institutions, with the powers which they at present legally and illegally exercise, would be altogether incompatible with the healthy operation of the national Faculties or Colleges of Medicine. The funds of the College of Surgeons in Lincoln's-inn-fields are adequate to the maintenance, in that institution, of a national LIBRARY OF MEDICINE, and a national MUSEUM OF MEDICINE, including of course the splendid collection of JOHN HUNTER The College of Physicians, should it be the beneplaciture of the renowned President and worthy Fellows, may be converted into a receptacle for a society of medical Tories, or, should it prove sufficiently capacious, the situation is admirably calculated for the institution of a medical club-house. It is somewhat fortunate, that the funds of the College present no difficulty in the way of a just arrangement of its affairs.

There are instances, however, in which charitable investments are connected with several of our institutions,—monies bequeathed by benevolent individuals for the fulfilment of charitable purposes. Sir PATRICK DUNN'S Hospital, connected with the King and Queen's College, Dublin, furnishes an example of this description.

It has been alleged, that an interference with trust property of this character would involve a principle of spoliation, and establish a precedent at once of dangerous and immoral tendency.

If a plea of this tendency could be sustained, the authority of abuse would soon become paramount to that of the law. When the rotten political corporations were about to be exposed, this was the outcry raised by the corruptionists. It succeeded, however, in scaring only a few old women, who had not lived sufficiently long to be insensible to the advantages to be derived from plunder, and the possession of exclusive rights. It is the prerogative of a representative Legislature to control every description of property which, by law, is applied to public purposes.

But the power of the Legislature goes beyond this. Private property even is not allowed to interpose, as an insurmountable barrier to be maintained by the whim, caprice, or avarice, of a few individuals, against the necessities, or even the conveniences, of the public. Witness the modern improvements in rail-roads and

canals, and in the public streets of this metropolis. A still more striking instance, however, of the supremacy of the law than is exemplified in cutting roads through meadows and gardens, was exhibited in the last session of Parliament, relative to the property bequeathed by the late Mr. Thellusson. The Legislature, on that occasion, most wisely determined to amend the absurd conditions of the testator's bequest.

That Parliament, then, has the power to annul the legal privileges of the Colleges of Physicians and Surgeons, and to appoint new trustees for the eleemosynary funds which are in the keeping of those bodies, cannot be considered as debatable propositions. Were things otherwise arranged, the most abominable of all absurdities would soon be apparent in the spectacle of a whole nation checked and paralysed on the great road of human improvement, by three or four dirty fragments of mouldering parchment. Schedule A is, we believe, destined to be the tomb of the franchises of all our existing medical corporations.

Treatise on Diseases of the Skin; founded on New Researches in Pathological Anatomy and Physiology. By P. Rayer, D.M.P., &c. &c. &c. Translated from the French by W. B. Dickinson, M.R.C.S. London. Churchill, 1833. 8vo. pp. 400.

Systematic works on diseases of the skin and of the corporeal superficies are of modern origin. The observations of the Greek, Latin, and Arabic writers on the subject were very incomplete, and were dispersed at random through their works. No attempts at a regular arrangement of these affections can, consequently, be detected in the productions of the ancients, or even for a long while after the revival of letters. In 1630, Hafenreffer published a book, in which he professed to treat of all diseases incident to the skin and subadherent parts. He sorted together those diseases which had the most striking analogy, such as wounds, ulcers, fistulæ, &c. In 1633 Mercurialis wrote "De Morbis Cutaneis," and divided these affections into two principal classes, according as they interested the head, or were developed indiscriminately on other regions of the body. It was common in France to designate under the name of "teignes" all chronic inflammations of the hairy scalp, and under that of "dartres," all chronic inflammations, and several acute diseases of the face, the trunk, and the limbs. The defects of such a classification are obvious. Amongst other inconsistencies, the same affection has been classed as two diseases, as it has affected the *head*, or other regions of the body. This principle of classification was adopted by Turner in 1736; this author proposed a secondary distinction of these diseases, according as they were produced by internal or external causes, a principle which was adopted as a basis in Lorry's work. The arrangement can hardly be considered as an improvement, for the etiology of cutaneous maladies is too obscure to serve as the basis of their classification. In 1796, Plenck, abandoning the futile distinctions of his predecessors, adopted the *external characters* of cutaneous diseases as the foundation of his arrangement. This classification, though much superior to all that had been published before, was not exempt from imperfections. The idea of Plenck, however, was good, and was taken by Willan for the basis of his work, dividing it into seven orders—*Papulæ, Squamæ, Exanthemata, Bullæ, Vesicatæ, Pustulæ, Tubercula, Maculæ.* Generally speaking, the diseases which compose each of these orders have the most striking analogy. There are several incongruities, however, in Willan's muster of diseases. This classification of Willan was faithfully copied by Bateman and Gomez. Coeval with the labours of Willan in England were the researches of Alibert in France, who, in 1806, published his ostentatious work "*Sur les Maladies de la Peau,*" the graphic part of which was splendidly executed. In consequence of the war, which interrupted the intercourse of this kingdom with the continent, this author became the sole authority amongst his countrymen in this department of pa-

thology. It was, however, charged against the classification of Baron Alibert, that it was founded on loose analogies, which afforded nothing definite for the mind of the student to rest upon, while the enormous expense of the plates placed the book beyond the reach of many readers. When Willan's volume, therefore, reached the continent, the greater apparent simplicity and certainty of his plan made it highly popular, and it soon supplanted Alibert's voluminous fasciculi.

In Italy, Chiarugi adopted a system of classification analogous to, though less perfect than, that of Plenck and Willan. These last authors, by their arrangements, founded on the external characters of diseases of the skin, had the merit of rendering the descriptions more exact, but they had also the disadvantage of *separating* diseases, which, by their nature, ought to be *collated*, and of uniting others which ought to be apart. Retz has divided the diseases of the skin into two grand sections, according as they take an *acute* or a *chronic* form. And J. Frank proposed two great divisions, viz. *essential* and *symptomatic* cutaneous diseases.

Dr. Rayer considers the classification of Willan as the most accurate and methodical, and has chosen it as the starting point for his own work. "Willan," says he, "confines himself to the consideration of the external appearances of cutaneous diseases, while I have taken as my basis the conformation structure, and phenomena, of these alterations. By studying them, thus, under an anatomical and physiological point of view, it becomes easier to appreciate their nature, often left undetermined by Willan, and to avoid some false relations which disparage his classification." It is satisfactory to observe the candour of the former author, in admitting his obligations to our great cutaneous pathologist, whose descriptions he declares to be most constantly correct.

Rayer first marshals his conscripts into four very unequal classes:—1. Diseases of the skin. 2. Alterations of the appendages of the skin. 3. Foreign bodies observed on the surface, or in the substance of the skin. 4. Diseases primarily foreign to the skin, but which sometimes produce peculiar alterations in that membrane.

1. The first class is subdivided into six orders. 1st. Inflammations of the skin:—*a*. Exanthematous; *b*. Bullous; *c*. Vesiculous; *d*. Pustulous; *e*. Furunculous; *f*. Papulous; *g*. Tuberculous; *h*. Squamous; *i*. Linear; *k*. Gangrenous; *l*. Multiform. The second class contains cutaneous and subcutaneous hemorrhages. The third contains neuroses of the skin. The fourth, alterations in the colour of the skin. The fifth, morbid secretions; and the sixth, defects and redundancy of conformation. 2nd. The first subdivision of the second class includes alterations of the nails, and the matrices which produce them. The second includes alterations of the hair, and the follicles which produce them. 3rd. The foreign bodies obnoxious to a healthy condition of the common tegument are animate and inanimate. 4th. This class embraces alone the elephantiasis of the Arabs.

A careful perusal of the writings of authors who have treated of these maladies, must convince the reader that a perfectly philosophical arrangement of them is impracticable, for they form a discordant body consisting of members having closer relationships elsewhere. Cutaneous diseases can never form a symmetrical constituent of any general nosology. But this is no sufficient reason why they should not be considered in one point of view, for practical purposes.

There can be no doubt that a synopsis of diseases of the skin must be highly useful to the student in his clinical exercises, and we can recommend the present translation of Rayer's treatise, as an excellent companion at the bed-side of the patient. We would advise Mr. Dickinson, in a second edition, to append a plate with coloured representations of the several classes and orders, as that would much assist the diagnostic labours of the young practitioner. The translation is executed in a perspicuous style, in which, however, a few idiomatic blemishes are apparent, but they scarcely deserve notice when we bear in mind the practical value of the publication. Mr. Dickinson is, we understand, preparing an APPENDIX to this translation, which will contain all the useful additions found in the second edition of the original work, just published in Paris.

A Compendium of Osteology, being a Systematic Treatise on the Bones of the Human Body, designed for the Use of Students. To which is subjoined an improved Method of preparing Bones for Osteological Purposes. By GEORGE WITT, M. D., Physician to the General Infirmary, Bedford. London. Longman and Co. Long 4to.

STUDENTS of anatomy will find this work to be an exceedingly useful and ingeniously contrived elementary book of reference. It clears away the chief difficulties of osteology, and facilitates its acquirement by a new, scientific, and judicious arrangement, and, in the absence of plates, is the most complete thing of the kind yet offered to learners. No labour is more discouraging than the study of the bones, and a good systematic plan for acquiring and attaining a knowledge of the skeleton becomes valuable in proportion to the want of interest which attends so *dry* a subject. The morning demonstrations of the teacher are soon forgotten. His description of the depressions, processes, furrows, foramina, and points of attachment of ligaments and muscles, during an hour's lecture, soon evaporates from the memory, and leaves a confused sediment, instead of those clear and orderly crystals of knowledge which we hope to find. In the application, then, of some *system* to the study, *alone* can a permanent hold of osteological knowledge be expected, and in the work of Dr. Witt we have as perfect and effectual a system as will probably ever be offered to public notice.

The useful feature in the work is its tabular form. The parts of each bone as they appear are (by name) successively presented to the eye. Thus all misapprehension respecting description is avoided, and hence the memory is essentially aided, and great labour is saved. The utility of Dr. Witt's system is stated in the Preface to have been proved by some years personal experience,—a good test, which he is now disposed to verify in other quarters, where we have little doubt he will obtain high credit for his industry. Valuable information has been gleaned by him from many sources, and so condensed that all the numerous facts required to be known of each part, are placed in a very brief space in the same page with the anatomical descriptions.

To each descriptive portion is subjoined a set of comprehensive questions, the replies to which will at once satisfy the student, whether or not he has mastered his subject. In the Appendix, the author has described a means of preventing the disappointment and annoyance which so often attend an imperfect preparation of bones. The process of maceration appears to be relieved by his mode of the uncertainty which has hitherto attended it, when conducted on the ordinary plan.

THE FORK CASE.

To the Editor of THE LANCET.

SIR,—The patient, Robert Syms, lately a sailor on board H. M. Ship *Belvidera*, from whose back I extracted a steel fork, and whose case you favoured me by inserting in THE LANCET of the 4th of February, 1832, is now in London. He has been submitted by me to the examination of several of the most eminent members of the profession, who are as much as myself at a loss to account for the patient's ignorance of his history. I have every reason to speak well of the man's character and honesty. On being paid off a few days ago at Portsmouth, he immediately came to me in compliance with my request.

As even medical men have hinted their doubts as to the true history of the case, I beg leave to say that the man will attend at THE LANCET Office on Saturday, Dec. 14th, and Monday the 16th inst., between the hours of eleven and one, where, with your permission, he may be examined and interrogated by those gentlemen who are incredulous. I am, Sir,

Your obedient servant,

DAVID BURNES.

5, Woburn Place, Dec. 11, 1833.

*** We have seen this patient, and feel no hesitation in stating that the cicatrix is precisely as it was described by Dr. Burnes. We readily comply with his request that the man may attend at the Office at the hours stated in his note.—ED. L.

VERDICT OF MANSLAUGHTER AGAINST A MIDWIFE.

On Thursday, November 28th, a woman named Pryke (calling herself a midwife) was committed for trial by the magistrates of the borough of Colchester, on a charge of manslaughter, under the following circumstances. A poor woman, named Barrett, was taken in labour of her twelfth or thirteenth child, on Tuesday, October 23, at which time Mrs. Pryke was called to attend her. She continued with her, at intervals, from that time until the following Friday, when she was much exhausted from repeated hemorrhage. On the morning of that day she was strongly pressed by the friends of the patient to call in the aid of a medical practitioner, which she refused to do. At three o'clock p.m., however, during the temporary absence of the midwife, the parish medical attendant saw her, and administered some medicine, at which she was much enraged, telling the friends of the poor sufferer that "there was nothing for a doctor to do," and "that all was right." The flooding continued at intervals until eleven o'clock on the Sunday morning, when another practitioner was called in, who delivered her immediately of a dead child,—the midwife, up to the very time, insisting that "there was nothing for a doctor to do." The poor woman lingered six or seven days, and then died from the effects of the hemorrhage. The presentation was one of the arm, with a partial attachment of the placenta over the os uteri.

LONDON HOSPITAL MEDICAL SOCIETY.

Friday, 22nd November, 1833.

DR. COBB *in the Chair.*

DIAGNOSIS BETWEEN THE DELIRIUM OF ERYSIPELATOUS FEVER, AND DELIRIUM TREMENS. TREATMENT OF THE LATTER.

Dr. VENABLES read the clinical details of several very interesting cases of erysipelatous fever and delirium tremens. The object was to distinguish between the incipient attacks of the two disorders, which, he said, in many instances so closely resembled each other as to be frequently mistaken one for the other. It frequently happens that the erysipelatous fever begins with delirium, and erroneous judgments have been formed till the appearance of the erysipelatous inflammation has first undeceived the practitioner The Doctor observed, that it was of importance to distinguish between the two attacks, because opium was advantageously administered in the commencement of delirium tremens, whereas it was not, generally speaking, admissible in the erysipelatous fever till an advanced period of the disease.

The diagnostic characters Dr. VENABLES laid down as follows:—However early delirium may supervene in erysipelatous fever, it is always preceded by *febrile manifestations* of greater or less intensity, whereas the delirium is the first symptom, and comes on suddenly, and without any warning, in the delirium tremens. In the erysipelatous fever the delirium is vague and wandering, having no fixed character, and is of the comatose description. In the delirium tremens the delirium is of a fixed and definite character, that is, the patient is always raving about his usual avocations, whether sailor, soldier, or any other pursuit, and, if uninterrupted, this appears to be a uniform kind. The febrile delirium he distinguished from that of mania by the following characters:—In fever the error was in the sensorium; in mania in the judgment. Thus, in febrile delirium, false impressions were made on the sensorium, the patient feeling, seeing, hearing, &c., what had really no existence, or, in other words, without the agency of natural causes. In mania false propositions were received and assented to by the judgment; or false propositions were stored in the memory, and, upon occasion, presented and assented to by the judgment, and acted upon as if true.

He also called the attention of the Society to the extraordinary efficacy of the salts of morphia in delirium tremens, and the advanced stages of erysipelatous fever, as exemplified in the cases detailed. In answer to whether he approved of bleeding in delirium tremens, the Doctor replied, that he never either applied or withheld the lancet, merely on account of the name of a disease, or any preconceived notions of its nature. He had often had occasion to bleed in delirium tremens, and with very good effect. No doubt the first morbid condition was in the nervous system, producing preternatural sensibility and excitement of that system. A constant consequence of this condition in fevers, and occasionally in delirium tremens, was preternatural excitement of the circulation. So far they stood in the relation of cause and effect. It was an error in therapeutical reasoning into which we were too apt to betray ourselves, that if we remove the cause, the morbid effect

will cease. This, however, would not always happen; but it was frequently necessary to subdue the effect before we could reasonably hope to act upon the cause. This arose from what might be termed "the reaction of disease in the system." For instance, the excitement of the nervous system is the cause of the unnatural excitement of the circulation; the latter reacts upon the former, thus becoming, as it were, a cause of keeping up the original cause—nervous excitement—which first produced it. Thus the primary febrile manifestations consist in nervous derangements. This is the moment at which fevers may be suppressed by sudden impressions upon the nervous system alone. But the progress being undisturbed, the circulation is involved, at first being merely generally engaged. At this period also fever may be suddenly arrested, by equalizing the circulation, that is, bringing it to the healthy standard, or as near to this as can be. Then the disease is in the first condition, and may be suppressed by sudden impressions upon the nervous system. Hence, he observed, if the circulation was in such a condition as to indicate the use of the lancet, he should not hesitate to institute bloodletting merely because the disease was "delirium tremens;" on the contrary, he should consider himself as merely prolonging the disease by neglecting such a powerful auxiliary, and rendering the cure both more difficult and uncertain.

PHRENOLOGICAL SOCIETY.

EXAMINATION OF SKULLS—PHRENOLOGY IN FRANCE.

This Society has commenced its sittings for the winter session, and the members continue to assemble at the rooms in Panton Square, Haymarket, every alternate Monday. At the first meeting, held Nov. 4, Dr. Elliotson, president, in the chair, the treasurer's account was laid before the Society, and C. T. F. Wordsworth, Esq., was elected an ordinary member. A cast of the brain of an idiot was laid on the table by Mr. Drew, and works were presented to the Society by Dr. Fossati and the Chevalier da Gama Machado. Casts of the head and skull of Captain Nicolls (lately executed) were also presented to the Society by Dr. Elliotson. The intellectual portion of Nicolls was very poor, and a member stated that Captain Nicolls was an exceedingly weak individual, as well as a vicious one.

Mr. Drew then read a paper on the probable character of an individual whose skull had been put into his hands to obtain his opinion respecting it. The correctness of Mr. Drew's views, with regard to the habits of the individual, was to be verified or disproved at the next meeting by a member of the Society, who expected to be able to procure a document declaratory of the previous character of the individual. Mr. Drew stated that he had only been told that the head had belonged to a criminal,—that he found the head so small that he conceived it must have been that of a woman,—that it was by no means so bad a head as is frequently seen in criminals, though destructiveness was *very large*,—that there was no such poverty of intellect as to have made the person the constant victim of his feelings, nor such preponderance of any one of the feelings as to enable a phrenologist to say what motive, had he been a murderer, had impelled him to commit crime.

Mr. Deville (at the request of Mr. Burlowe) gave to the Society a short account of what he had observed respecting phrenology during a visit which he paid to Paris during the vacation. He stated that at present the French *savans* seemed to be paying much attention to the science, and that considerable public interest was excited respecting it in France. There are two phrenological societies at present in Paris,—the *Phrenological*, which had a very large number of members, and the *Anthropological*. The last had been originated by Dr. Spurzheim and others, who seceded from the first Society on account of some difference of opinion, of which he (Mr. D.) did not know the details. Mr. D. stated, also, that the Anthropological Society were likely to be "taken in hand by the Government," and that then it was most probable that the two Societies would merge into one. At present they differ little but in name, and many scientific persons are members of both Societies. Mr. Deville said that he was in treaty with this Society for a mutual exchange of phrenological casts, &c. He observed that he did not think the French were yet good practical phrenologists, but that much industry had been shown by them in the formation of a museum, and in the collection of fresh facts, casts, and skulls, &c., since last year. He observed there some ten or twelve casts of suicidal heads and brains, which had been collected with a view to the establishment of an organ at the base of the brain,—connected with the "love of life." For the most part these Societies seemed to consider its existence as very probable. They have already collected a large number of the heads of criminals.

WESTMINSTER MEDICAL SOCIETY

Saturday, November 30th, 1833.

Dr. GEORGE GREGORY in the Chair.

CONTINUATION OF THE DEBATE ON MEDICAL REFORM.

Mr. KING this evening commenced the adjourned discussion with a speech introductory to the fourth resolution (see page 366). The resolution was condemnatory of the charter and council of the College of Surgeons. He congratulated the members on the proof which had been afforded, that medical reform was no longer a party question, nearly the whole profession being now ranged on one side. The points to be kept in view in debating the subject were simply these:—1st, How the public health was to be secured; and, 2ndly, what was the best mode of conducting medical education. It was for the Society to decide whether the present medical constitution was adequate to its purposes, or whether a fuller amount of knowledge and talent might not be ensured on the part of medical men under some other system. If the reply to the former should be a negative query, then must a new system be sought for, and what that system should be, he, Mr. King, would now endeavour to explain, according to his own views of the matter. Amongst other bad arrangements, Dr. Somerville had mentioned that of apprenticeships. On this point he differed from the Doctor. It was very desirable that students should live as apprentices in the houses of surgeons for a stated period, though he (Mr. K.) admitted that that period should be shorter than it now is. In France there were no apprentices, and his opinion was, that the medical students of that country were very deficient in such parts of their profession as were usually learned in the "surgery." This subject led him to say, that he thought a general preliminary education ought to be undergone by every candidate for entrance to the medical profession. In France and Prussia every student was required to obtain a degree similar to that of "Master of Arts" in England, before he was admitted to examination for that of "Doctor in Medicine." A certain portion of time ought to be devoted in all cases to the acquirement of medical knowledge. At present it was ill bestowed, and he (Mr. K.) would cut off a part of the apprenticeship, and diminish the number of lectures to be attended, and appropriate the time thus obtained to hospital practice. As to the number of examinations which candidates for a degree should pass, there ought to be more than one. Knowledge in the entire range of medicine could not be tested in one examination, even if it were continued from morning till night. There should be five or six. These examinations had more uses than that of security to the public. They were not only exceedingly advantageous to the candidate now, but their good effect was permanent by the exercise of mind they required, and auditors of the examination were almost equally benefited. Conducted with due courtesy and impartiality they were, as public spectacles, an admirable institution. He had heard of young men falling down and fainting away before the courts of examiners in London; but this was the result not of public examinations, but of the want of them, for the custom, the preparation, and the excitement, would fortify the nerves of young men for the ordeal. Mr. King then proceeded to point out that there ought to be no such distinction made by examiners as that of surgery and medicine, the science being indivisible; but he had, he said, an impression that degrees of a higher grade than that which was to be a guarantee of efficiency, might be advantageously instituted, as an encouragement to men of higher talent. Particular academies, however, should confer honours of that kind, and the law should not require them to be obtained by any man. With regard to the Council which should examine candidates, and from which the laws for the internal government of the profession should emanate, it had been said that the members of that tribunal ought to be elected by the great body of the profession. (*Hear, hear, hear.*) Now he dissented from this. True the plan had a seductive appearance, but there were evils in popular elections to which it might be liable, and if we had a state government which could be depended on, it would be better to let that government appoint the council who were to control the Faculty of Medicine, the whole profession. (*Cries of "No, No, No," all round the room.*) He was glad to hear those exclamations; he liked the spirit of them; but he thought, notwithstanding, that if the legislature could be depended on, it had better appoint the governing council. (*No, no.*) Influences might prevail in the popular election, which would thwart the real object of the profession. (*No, no.*) Anything, however, was better than the present system. The legislature had better appoint it than that. The concours,—

Mr. COSTELLO here rose, and said, that if Mr. King had been present on the previous evening, he would have known that all these points had not only been already

discussed, but that the opinion of the Society had been so fully expressed on them, that it was a useless occupation of its time again to go over them. (*Hear, hear.*) He (Mr. C.) had waited with great patience to hear something new from Mr. King, and as it might be desirable to point Mr. King's attention to the proceedings of last evening, he ventured with feelings of the greatest courtesy to do so. Mr. King would perhaps see that everything relating to apprenticeships, and indeed all details, would become the business of the council, and that the great object of the Society should be to obtain the appointment of such a body as should be responsible to the profession for its acts. (*Hear, hear.*)

Mr. KING would, then, hasten to a conclusion, though he thought the nature of the resolution he had to move justified his reference to the matters in question. It reflected on the charter and conduct of the council of the College of Surgeons. The Society would be glad to relieve the council of its interested duties. Those gentlemen themselves (the council) would, in fact, benefit from the consummation of medical reform, (*a general laugh,*) and it would at the same time free them from the grievous charges which were now so justly urged against them. (*Hear, hear.*) Apathy in the discharge of its duties was ever the natural result of irresponsible eminence. He concluded by moving the fourth resolution.

Dr. SOMERVILLE said he thought some step should be taken to ensure a preliminary examination into the general knowledge of candidates for the medical diploma. However, this would be the business of the representative council of the Faculty, whose duty to the public it would be to to see that the diploma of the Faculty was really a proof of extensive general and professional knowledge on the part of its possessor,—of a great deal more knowledge in fact—even surgical knowledge for instance—than the diploma of the London Royal College of Surgeons was evidence of. In truth, the diploma of that institution was perfectly valueless as a proof either of knowledge or talent. He might, by-the-by, take this opportunity of stating that the Secretary for the Colonies, who had many medical appointments at his disposal, considered the diploma of the College such a worthless document, that he would allow no member of the College to hold the office of surgeon in his department until he had been examined by the Army Medical Board to ascertain that he really did possess a knowledge of surgery. No wonder that the examinations at the College were of little value. The examiners were appointed from the hospital surgeons, for whom God knew he had the greatest respect, and lecturers, and they were accordingly, he was sorry to say, interested in "passing" as many young men as possible. He hoped to see the day, however, when no body of men would have an object of gain in making physicians and surgeons. While on this subject, he was led to say a few words relative to the exclusive spirit of the Council. It was well known that the museum of the College was the finest in the world,—a storehouse of knowledge that could not be equalled in the profession—and yet the profession were almost wholly debarred its advantages. The Chairman, for instance, and himself, and half the gentlemen around him, were excluded from it. (*No, no; Yes, yes; and Hear, hear.*) He (Dr. S.) said yes, yes, for such positively was the fact. The regulations allowed no man to go there who was not a member, or introduced by a member. Yet that very museum was purchased with the public money for the general advantage of the whole profession. (*Hear, hear, hear.*) When Dr. Thompson, of Edinburgh, was in town a short time since, he applied for leave to examine a particular preparation that was in the museum, but it was absolutely a fact that the Council refused their permission to him to inspect it. (*Cries of "Shame" all round the room.*) If the profession had but possessed a College of Surgeons which was amenable to them for its conduct, such acts would never have been perpetrated, and, moreover, the members would have known something more than they now knew of what was done in that institution in matters bearing at present a very suspicious complexion. (*Hear, hear, hear.*)

Mr. LAVIES begged to say a few words respecting the utter disregard of the Council towards the members of the College, for whom the Council cared not one farthing the moment after they had paid their money for the diploma. (*Hear, hear.*) The present Council, in fact, were too exclusively employed in furthering their own interests to have any time to attend to those of the members. Somebody had said "Why not offer suggestions to them?" But ought the Council to want them? No; they did not, and would not attend to them. As an instance of the discourteous feeling which they entertained towards members of the College he would mention the following fact:—Five or six years ago, he (Mr. L.) was called to a youth who had broken his arm. For his surgical aid he charged the parents two guineas, but the sum was objected to. To

satisfy their minds that the item was very reasonable, he referred them to a member of the Council who was a surgeon to one of the metropolitan hospitals, but to his (Mr. Lavies') astonishment, the referee returned answer that two guineas was too much. Greatly hurt at this he called on the hospital functionary, and asked him how he could treat a respectable practitioner and a member of the College which had granted him a diploma as a man qualified to practise surgery, in such an unjust manner, when the councillor said, "a guinea was enough for a general practitioner. In fact, he ought to have set the arm for nothing, if he ventured to set it at all, which it was somewhat out of his line to do, (*Cries of "Shame," and "Name,"*) as it was rather the business of a pure surgeon, who alone was justified in receiving large fees for surgical operations." He had another complaint to make. He (Mr. Lavies) practised in Westminster, in the hospital of which city the senior surgeon, a member of the Council, was constantly in the habit of taking the arm of, and opening the practice of the wards to, a man, who was not only not a member of the College, but an illiterate, uneducated, ignorant, and illegally-acting practitioner of medicine. (*Name.*) (The PRESIDENT objected to the mention of names, or farther references of this kind.) He (Mr. LAVIES) merely stated them to show how little the members of the College owed to the governing body. (*Hear, hear.*)

Mr. WALKER fully coincided in the opinions of the last speaker, and dwelt on the operation of the certificate system, showing that but very little knowledge was obtained by students, in London, in consequence thereof. "In fact," said Mr. Walker, "the sole object of the College regulations is to bring grist to the Council's mill (*Hear, hear, hear*), and the Council know it. These are the proper terms in which to designate their conduct; and while men so act, I object to any disguise of the truth by the employment of delicate and hypocritical phraseology, the use of which by those who fear plain language makes me blush for the cause of their timidity, (*Hear, hear,*) so gross, so palpably, so monstrously imperfect is the present system of medical education.

The resolution was then put, and carried unanimously. The resolution relative to the Apothecaries Company was then moved by Mr. CHINNOCK, and seconded by Dr. BLICKE, an outline of whose speeches we must endeavour to give in another number, want of space preventing us from adding here more than a sketch of the remainder of the proceedings of the evening, —having yet to find room for a report of those of the following meeting. Previous to the resolution being put

Dr. EPPS moved an amendment, in doing which he defended the Apothecaries Company as examiners of the drugs kept by medical men, and deprecated the sale of drugs by practitioners, and the making of charges for medicines. The amendment was seconded by Dr. JOHNSON, and, after considerable discussion, carried unanimously,—the fifth resolution of the Society then standing thus:—

"That the Act of the Legislature, by "which the exclusive privilege of becom- "ing the general medical practitioners of "England and Wales, under the designa- "tion of *Apothecaries*, being committed to "a trading Company, is not suited to the "present advanced state of the medical "profession, and more particularly to the "exalted situation which the general prac- "titioner holds, both in the profession and "in Society."

Shortly after this the meeting was adjourned to the evening of December 7th.

Saturday, Dec. 7th, 1833.

Mr. GILBERT BURNETT in the CHAIR.

THIRD EVENING OF DEBATE ON MEDICAL REFORM.

THE room was again much crowded. On admission we found Mr. HUNT on his legs, prefacing a motion of the sixth resolution (see page 367), by a speech, in which he dwelt with much appropriateness on the medley character of the profession in England, enforced with arguments much to the purpose (but which, as well as several other of the early speeches, we cannot here record), the prejudicial effects of letting chemists and druggists run wild in the field of medical practice. The motion was seconded by Mr. WALKER, with some energetic observations. An amendment, varying some of the words, was proposed by Mr. HOLT; but the original motion was carried almost unanimously.

The seventh resolution was moved by Mr. GRIFFITHS, and seconded by Mr. HUNT, with some remarks on the inadequacy of the remuneration which the great mass of the profession received in return for the money and time expended in qualifying themselves for practice.

Dr. JAMES JOHNSON then rose to move the eighth resolution, that the remedy for the evils complained of would consist in the institution of one governing "Faculty or Academy of Medicine." In the practice of medicine, he observed, the

great difficulty was to ascertain the nature, cause, and seat of the disease. This once accomplished, however, the application of the remedy became comparatively easy. The body politic of the profession might be compared with the human body. The disease of the former was now pretty well understood, for it had been thoroughly examined by the speakers in the Society. He had been preceded by accurate anatomists, who with double-edged scalpels had completely dissected the body, by pathologists who had carefully examined its morbid structures, and by chemists who had analysed its morbid humours, thus saving him much trouble – in fact too much, for in addition to their several appropriate labours, each anatomist, pathologist, and chemist, had so trenched upon his (Dr. J.'s) province as a therapeutist, that he had hardly an inch of ground left beneath his feet. As an old man-of-war's man, he might be disposed to encroach in return upon their domains; but this he should abstain, in any great degree, from doing, and offer a few words only on the subject of medical anomalies and abuses. The most prominent of these was the present division of practice into medical and surgical. In times of gross ignorance it might have been venal to establish such a distinction, but its continuance when it was notorious that every physician was compelled to study the same elementary knowledge as the surgeon, and the surgeon the same as the physician, was inexcusable in theory, and in practice impossible, as was evident from the fact, that the great mass of the profession, though called surgeons, were the physicians of the community. If the profession of medicine admitted of any division at all, it was that of a separation of chemists and pharmaceutists from the practitioners of medicine, for the former need not be acquainted with the practice of physic or anatomy, though the latter should be well versed in chemistry and pharmacy. The science of medicine might be likened to the fruit of a tree, the roots of which demanded a good supply of nourishment to enable the trunk to stand, the branches to be well supported, and the fruit to ripen. Medical education was to medical science what the roots were to the tree, and unless each were well supplied, the superstructure must be poor or unsound. Ten or a dozen medical trees existed in these kingdoms, and although exactly the same quality of fruit was demanded from them all by the community, each tree was planted in a different soil, some drawing water from one river, others from another, each necessarily bearing a different product. What could be more injurious to the health of that community? What was more unjust and absurd than the regulations of the colleges of physicians? what more fallacious than the distinctions attempted to be made by both colleges in medical practice? An attempt he called it, for while at the College of Surgeons physic was completely thrown overboard, nine-tenths of its members were occupied in the practice of the rejected art. The very council of that college themselves were continually practising in medical cases. Since this question began to be discussed in the Society, he (Dr. Johnson) had met three of the members of the council in consultation in medical cases—Mr. Guthrie in a case of phthisis, Sir Charles Bell in a case of epilepsy, and Mr. Brodie in a case of gastritis, and yet those men were eminent stars in a college which will have nothing to do with physic! Let some other of the absurdities committed by these institutions be regarded for a moment. In times past lunatics were supposed to be subjected to the approach and influence of the moon. In modern times, the science of surgery was made servant to one of the heavenly bodies. The College of Surgeons decreed that when the sun approached the tropic of Cancer, all anatomical knowledge then acquired possessed no kind of value, and that when that luminary was in the other hemisphere, anatomy was excellent. (*Laughter.*) Did not such a college as this require reform? (*Hear, hear, hear.*) The third chief tree in the medical wilderness of England, the Apothecaries Company, was about on a par with its fellows, though it had managed to obtain a legal power over the profession. This company required six or seven years to be spent in the acquirement of knowledge. And with what wisdom and good judgment did they apportion the occupation of that time? Why five years of it were allotted by them to the making of pills, the filtering of tinctures, and the labelling of bottles, while to the study of anatomy, physic, surgery, and clinical lectures, eighteen months or two years were awarded. (*Laughter, and cries of Hear, hear.*) He would appeal to the Society whether the reverse of this upside-down plan should not rather prevail. He need not notice the Dublin, Edinburgh, Aberdeen, and St. Andrew's schools, at all of which, also, different modes of education were ordained,—the entire mass of our medical institutions studying, in fact, their own interests instead of the public good. It had been said, that this Society was composed of "levellers," because they wished to reduce the extent of education to the lowest scale. The name was probably true; the alleged ground was false. Not

a syllable had been uttered there to justify such a charge. He (Dr. J.) would be a "leveller," it was true, but it was by elevating the lowest minimum of education to the greatest maximum, that he would level the distinctions in the profession. (*Hear, hear, hear.*) Let those who chose to go to academies for additional honours, in God's name, do so, but one thing he would insist on, that *every* practitioner should possess the title of "doctor," in virtue of his rank and acquirements. (*Hear, hear.*) The same libellers said, that if all grades were merged into "doctors," there would not be men enough in the profession to attend the sick poor. He denied that. There would be abundance of practitioners. At present there were far too many, and the best way to check the superabundance was to elevate the scale of education. (*Hear, hear.*) The poor would ever find relief in the hospitals, where the best practitioners would always be glad to obtain appointments, and, moreover, there would always be plenty of young practitioners fully qualified to practise, willing to give advice to the poor, who would, in fact, be far better attended than they now are. To come to the resolution. He was of opinion that they ought not to propose remedies for the grievances of the profession to the legislature. They ought simply to represent to Parliament the nature of the disease, and let government find the cure. The resolution in his hand could not be regarded as a proposal of a remedy, but rather as a hint, and for that reason he moved it. One governing body was essentially necessary for the regulation of the profession, whatever might be the details of the law. The resolution did not point out what that body should do, but it merely prayed that in place of a dozen governing bodies, which now exist, there should be one, and the institution of *one* Faculty would be of infinite advantage to the profession. He would say nothing about the disposal of the medical corporations. Let them still exist, if it so please the Parliament, but over them all there must, at all events, be one powerful governing and regulating body, the head and front of the profession. (*Hear, hear, hear.*)

Dr. SIGMOND, in seconding the motion of Dr. Johnson, warmly advocated the institution of one Faculty of Medicine, and dwelt on the obstacles which had hitherto been opposed to all plans of medical reform, by persons who had employed their station and influence in "ear-wigging" ministers. The charter of the College of Physicians was, he said, sufficient for the whole profession, if exclusive powers were not exercised under it. The College of Surgeons had long since forfeited their charter. In re-arranging the profession, he would divide it into Doctors of Physic, Doctors of Surgery, and Licentiates of Physic. Dr. Sigmond, in the course of his speech, made many classical and historical references which we need not repeat here. His proposal to again "divide" the profession, after it has been united in one Faculty, is enough on the present occasion.

Mr. WALKER rose to propose an amendment to the resolution. One Faculty, he said, would be of no use unless the members composing it were elected by general suffrage of the members of the profession; he should, therefore, propose that after the words "one Faculty or Academy of Medicine," there be added a sentence to this effect,—"elected by the members of the profession over whom it presides."

[During this part of the discussion a misunderstanding of the spirit of the eighth resolution clearly prevailed. Of course the intention of its framers and supporters was this, that the whole profession should be constituted by the legislature into one Faculty, the governing department of which should consist of a representative council or academy, chosen by votes of the members of the whole profession. Mr. Walker, however, acted very properly in endeavouring to obtain a strict assimilation between the intention and the formal resolution of the Society.]

Dr. JOHNSON hoped that no "details" would be comprised in the resolution, as it was not desirable to embody therein more than the suggestion for a Faculty. Other gentlemen made some remarks to the same purport, when

Dr. GEORGE GREGORY rose to move an amendment also to the resolution. He agreed with Dr. Johnson, that the Society ought to name only the disease. If, however, it was determined to suggest a remedy, the measure ought to be described in an intelligible manner. Everybody in his round of acquaintance was asking him, "What was to be done with the three existing Colleges? Were they to continue, and was the Faculty or Academy to be superadded to them; or were they to be done away with, and the Faculty to reign supreme?" In his opinion the three institutions ought to continue; it was for the good of the profession that they should. He certainly should not have attended these debates at all, if he had not understood that the twelve medical colleges were to be reformed, and not abolished. All the printed proceedings of the Society were headed "medical reform," and not "medical abolition." In fact, it was too

sharp practice at once to say, "Cut off their heads; so much for Buckingham!" They should have time given them to reform, and if they failed to amend, then he would be a willing advocate for their abolition. Dr. Gregory then moved an amendment, to the effect that the evils complained of would be remedied by the appointment of a legislatorial board of commissioners, whose duty it should be to supervise and regulate professional education and practice.

Dr. JOHNSON said, that if he was any judge of language, the whole of Dr. Gregory's amendment was embodied in one line of his own resolution. He (Dr. J.) had nothing to do with existing institutions; he merely asked for a power which should be superior to all the medical colleges, even if there were fifty of them in the country. (*Hear, hear.*)

Dr. SIGMOND could not withdraw his support from the motion he had seconded, for he hated the very name of "commissioners," and never heard it without thinking of bodies of men whose only object was to put money into their own pockets. (*Hear, hear.*)

Dr. BLICKE hoped there would be unanimity in all quarters on this subject, and therefore opposed both the amendments.

Mr. WALKER subsequently withdrew *his*, because he would not aid in creating division in the Society.

The CHAIRMAN then put Dr. Gregory's amendment, for which some hands were held up. He then put the original motion, and pronounced the latter to be carried. Dr. Gregory, however, was not satisfied with the loss of his proposition, and demanded that a ballot should be taken thereon at the next meeting.

Dr. GREGORY then moved the ninth resolution, that the Society do petition for a Parliamentary Committee of Inquiry into the state of the profession (in opposition to a Royal Commission). This was seconded by Dr. LEONARD STEWART, and carried unanimously, and the meeting then separated.

LONDON MEDICAL SOCIETY.

THE attention of this Society has been occupied during two evenings, since our last report, by a paper, communicated by Dr. NEGRI, on the efficacy of the ergot of rye in hemorrhage and leucorrhœa, and on its effects in gonorrhœa. We should have endeavoured to find room for the article in our present Number; but as the paper has already appeared in print in two periodicals, we must postpone the publication of its chief points in our own pages to the earliest convenient time.

MEDICAL REFORM.

The meeting of Monday last, December 9th, was a special general meeting of the members, assembled to receive the following communication from the Council, to whom the question of medical reform was lately referred:—

"That it be recommended to the members of the Society, at a special general meeting to be convened for that purpose, to appoint a committee of three classes of practitioners (such committee to consist of nine members), to obtain information with reference to the present state of the profession; to communicate with other associations upon the proposed alteration in the education and practice of practitioners in medicine and surgery generally; to watch any legislative proceeding that may be submitted to the ensuing session of Parliament, and, from time to time, to report their proceedings to the Council."

An impression prevailed amongst many gentlemen present this evening, that the Council were averse from the discussion of medical reform in the Society, and had framed this resolution with a view to delaying its public consideration. A discussion consequently ensued, which occupied the entire evening, in the course of which some expressions were elicited by the interference of Mr. SALMON, apparently confirming the former part of the impression. However, the Council now repudiated any intention of procuring delay, and, at the suggestion of Dr. JAMES JOHNSON, the following addition was made to the resolution, the unanimous approval of the Society being obtained to both:—

"That this Committee be requested to draw up a petition to Parliament, stating that in the opinion of this Society there are grievances affecting the profession, and praying for a parliamentary inquiry into the general state of the profession."

The following gentlemen were chosen to form the committee of nine:—Drs. Johnson, Uwins, and Shearman, and Messrs. Salmon, Procter, Dendy, Headland, Linnacre, and Wray. We have not room this week for any details of the discussion, but we may perhaps give an outline of them in another number.

LONDON HOSPITAL.

APOPLEXY.

James Keep, æt. 55, a sailor of intemperate habits, was admitted on the 8th August, in a comatose state, having been seized with a fit of apoplexy about two hours before he was brought to the hospital. The symptoms were more severe in this case than in any one of the kind which has been admitted for many months. Total insensibility, flushed countenance, stertorous breathing, frightful contortion of the mouth, were presented, and in whatever position a limb was placed so it remained. The right side was paralytic. As reaction was fully established at the time of his admission, the pulse being full and hard, he was immediately bled to twenty ounces, and purged with croton oil. The venesection was repeated twice, and it was not until the lapse of ten days that he manifested symptoms of returning consciousness.

This case Dr. Davies repeatedly and effectively attempted to fix on the attention of the pupils. He observed "that the indication pointed out in preceding cases of apoplexy which they had seen, held good in the case before them, that of absorption." After having combated the first and more urgent symptoms by general and topical bloodletting and purging, small doses of blue pill were given, so as gently to affect the mouth, "stealing the mercury, as it were, into the system, and keeping up slight action for some time." During this remedial process, however, Dr. D. observed that they must not disregard the patient's general health, nor allow the remedy to be carried to so great a length as to depress very considerably the powers of the constitution. The case was a tedious one, although not more so than the generality of such affections. Indeed, few cases were ever treated so successfully, where the apoplectic symptoms were so extremely severe. The patient, latterly, however, had some doubtful symptoms; wandering pains, shooting from the right to the left temple, with giddiness. The occurrence of these sensations excited some apprehension that the bloodmaking process was not only going on too rapidly, but that there was some irregularity in its distribution, for the brain was evidently "groaning under its burden." But Dr. Billing (under whose care the man has now been for some weeks) combated these symptoms with caution, and the case has since gone on very favourably.

EMPYEMA.

Patrick Lawlar, an Irish labourer, ætat. 38, of sanguine lymphatic temperament, was admitted as an extra-case, under the care of Dr. Billing, on the 14th of September. He stated, that about three weeks previous to his admission, while standing in the London-docks in an exposed situation, waiting for work, he was seized with a severe shivering fit, which was quickly succeeded by heat of skin and thirst. He immediately became unequal to the performance of his daily labour, and applied to a medical man for assistance, who prescribed some cooling aperient medicine, but as no very decided improvement followed the treatment, he came to the Hospital as an out-patient, and was admitted as an extra-case.

When solicited to state his complaints, he said that he was very weak, had "a very heavy smothering about the heart" (not an unfrequent complaint of the lower orders of Irish), and no appetite. The pulse did not exceed 100, nor could any cause for the sensations complained of be discovered by a minute examination of the precordial region with the stethoscope. Respiration was rather quicker than natural, being about 22 in the minute. The patient having sat up in bed, that the chest might be examined posteriorly, upon percussion a very marked difference in the sound was detected; the right side emitted a clear hollow sound, the left a dull fleshy sound. A total absence of the respiratory murmur was detected on the left side, from a little above the inferior angle of the scapula, downwards, while on the right side respiration was puerile. By measurement, the left side was found to be larger than the right by an inch.

Ordered to be bled to 16 ozs., and to take *Calomel*, gr. ij, ter in dies, *Mist. Salin. Antim.*

As the patient expressed himself benefited by the medicines, Dr. Davies, at his first visit, requested their continuance, at the same time stating his intention to introduce his "needle" at the next visit, if no decided change followed the plan of treatment determined on.

Sept. 15. Thinks himself better, his breathing is not so difficult; has passed a more comfortable night; bowels open.

17. Complains of slight tenderness of the gums; thinks the "smothering sensation about the heart" is better; continue the calomel, &c.

20. No alteration in the size of the chest, nor do the lungs appear at all more permeable to air. Dr. Davies was anxious to have his needle introduced, but the patient would not consent.

Admoveatur Emplast. Cantharid. Emp. lateri sinistro; persistat in usu medicinæ.

23. Complains bitterly of the soreness of his mouth. On measuring the chest this morning, a decided diminution was evident; the man is in excellent spirits, and satisfied that he is getting well rapidly; the absence of the respiratory murmur is quite as well marked.

27. Continues to improve; his only complaint is the soreness of his mouth.

Ordered *Dec. Cinchonæ* ter die, and mutton chop, instead of half diet.

Oct. 4. The chest was measured again this morning. The left side, which had been larger than the right by an inch, was now smaller by at least half an inch. On viewing the front of the chest at a little distance from the body, the left side presented a flat appearance, and the shoulder was dropped,—symptoms which are peculiarly characteristic of the disease at its present stage. Respiration inaudible from the inferior angle of scapula downwards. Dr. D. expressed his suspicions that the patient would ultimately become consumptive, and as there could be no utility in persisting in the use of the calomel at the present moment, he wished it to be discontinued.

Ordered a pint of porter daily; continue the decoction, with the addition of xxiij, *diluted Sulph. Acid.*

14. The flattened appearance of the left side is now particularly obvious, so much so that the passing of the hand over the chest is sufficient to detect its altered conformation. The lungs are becoming more permeable to air,—the stethoscope, applied to the base of the scapula, detected a delicate murmur, mixed up with slight rhonchus sonorus gravis. Dr. Davies was understood to observe to the gentlemen present, that they were not to suppose from the contraction of the chest before them, and in similar cases, that the chest actually contained less air, for what was lost in its transverse diameter was gained in the perpendicular.

Nov. 21. The patient was this day discharged cured. Respiration remained very indistinct at lower part of the lungs. He suffered no inconvenience from walking quickly, nor did it seem a matter of the slightest consequence on which side he lay in bed.

Royal Medical Society, Edinburgh.—At the late election for Presidents, the following gentlemen were appointed:—Geo. Augustus Fred. Wilks, Esq., London; Alexander Innes Hamilton, Esq., Edinburgh; William John Irvine, Esq., Malta; Robert Spittal, Esq., M.D., Edinburgh.

ST. GEORGE'S HOSPITAL.

COMPOUND FRACTURE OF THE SKULL—COMPRESSION — RESULT AFTER TREPHINING.

(*Concluded from page* 381.)

Aug. 5. The child W. Bowker (on whom Mr. Brodie performed the operation of trephining) was this day much the same as at last report; the edges of the scalp wound were pale and excited; cerebral pulsation very strong; pulse 130; tongue slightly furred; countenance anxious and pale; the child is restless, and moans at night; rest very much disturbed.—Pergat.

7. A portion of the cerebrum has protruded, forming hernia cerebri. The child is very low; pulse weak and quick; bowels open. A bandage, enclosing a thin plate of lead, was ordered to be placed over the wound to prevent the further protrusion of the cerebrum, and to support it.

8. Better in some respects; countenance more lively.

11. Has not improved since last report; pulse quick and irritable. The prognosis of the case given by Mr. Brodie is unfavourable.

15. Since last report the child gradually got worse, and on this day died.

Autopsy.—The vessels of the cerebral membranes were found slightly injected, except around that part which was protruded, where this was not so much remarked. At the posterior and inferior portion of the cerebrum, an abscess was discovered, which had burst, and bathed in matter the cerebellum and adjacent parts. This was a sufficient cause to account for the latter symptoms of the case, and the death of the child. The pelvic, abdominal, and thoracic organs presented no abnormal appearances worthy of remark.

WANT OF MEDICAL MEN IN UPPER CANADA.

To the Editor of The Lancet.

Sir,—As I think the enclosed information, contained in a paragraph extracted from the *Grenville Gazette*, would benefit many of the numerous talented young men of the medical profession, whose prospects are clouded by the present state of affairs in this country, and who are also your readers, you will probably be conferring a kindness on them by a reprint of it in your Journal. Professional pursuits, combined with farming, hold out a sure—a certain—independence. Thirty pounds will convey a person there; fifty

pounds will more than keep him for a year; at the end of which time his course will be chalked out to him. Let him take his instruments, a few of the medicamenta, and three suits of good warm clothing, and that will suffice for an outset. Perhaps it may be well for me to mention that all the under-mentioned places are in the London and Western Districts of Upper Canada. I am, your humble servant,

PHILOMEDICUS.

The Paragraph.

"*Important to the Medical Profession.*—Perhaps it is not generally known that in the townships of Lobo, London, Delaware, Wilberforce, Westminster, and Goderich in the County of Middlesex, in the District of London, and in the County of London, and in the County of Oxford, the township of Nissouri, Oxford West and North, Oxford East, Blandford, Zorra, Burford, Dearham, Norwich and Oakland in the said District, containing by last returns 15,174 souls, there is only one medical gentleman who is authorised to practise his profession according to the laws of this province (and he resides at London), excepting Dr. Dunscombe (who has quitted practice). It opens a wide and extended view of profitable practice to any gentlemen of the above profession who may emigrate to this flourishing district, and in order to give them a more full view of the matter, the population of the townships above-named are set forth below. It is a well-known fact, that there are no less than ten practising the above profession, contrary to the law of the province, in the several townships, besides a greater number who call themselves by the sonorous name of *patent* doctors, whereby a great number of valuable lives of his Majesty's subjects are jeopardized, and at the same time have their pockets picked, much to the disadvantage of the regularly-licensed practitioner, and much to the disgrace of the Legislature of the province on this most important matter.

"Annexed are the names of the above townships, with the amount of population to each town.

"London, 3856—Westminster, 1480—Delaware, 156—Dorchester, 213—Nissouri, 664—Lobo, 568—Oxford West, 1064—Oxford East, 395—Blenheim, 808—Burford, 1268—Zorra, 1550—Oakland, 420—Norwich, 1919—Dearham, 250—Goderich, 56—Wilberforce, 83—Blantford, 110."—*Correspondence of the Grenville Gazette.*

"DIED BY THE VISITATION OF GOD."—This common but much-abused verdict would be truly ludicrous in the present state of medical science, were it not a flagrant violation of the decalogue which interdicts the taking of the name of the Deity in vain. I do protest against *its further use.* Medical nomenclature is abundant enough to assign a term to the immediate cause by which death is effected, and whether it occur by apoplexy, by a flash of lightning, by hemorrhage, by epilepsy, or other sudden instrumentality, the means can be accurately enough defined, if the proper examination be permitted. No *medical* coroner would tolerate such a verdict, which is only framed to hide the ignorance of incompetent officers.

W. L.

DEATH OF BOYER.—We have to record the melancholy intelligence of the sudden death of one of the oldest of the French surgeons, Baron BOYER, chief surgeon of the Hospital *La Charité*, and author of several well-known works. He died on Sunday fortnight. He had reached a very advanced age. He had long been subject to nephritic pains, which recurred with violence on the preceding Friday, when he applied 40 leeches to the lumbar region. He applied 50 more on Saturday, which reduced the venerable man to such a state of weakness, that on the following day his frame sunk for ever. His obsequies were attended by all the Parisian Professors, and by a large body of the students in medicine.

THE cholera is again slightly showing itself in Paris. A few dropping cases continue to be received into the *Hotel Dieu*, where M. Sanson has been appointed definitively to lecture, while M. Dupuytren is ill.

CORRESPONDENTS.

Can any of our correspondents furnish us with the address of Mr. Murray, who was lately engaged in business as a chemist and druggist, at the corner of Orchard-street, Oxford-street?

ERRATA.—In the second notice under the head of "Correspondents" in last week's LANCET, col. 2, line 4, *for* "of cholera" *read* of thousands.

In Mr. Salmon's letter, page 498, col. 2, paragraph commencing "He proceeds," the reader is requested to convert the "I"'s in the first five lines into "you"'s; also *for* his *read* my, and *for* he *read* I.